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Fast connecting R&D

Selected papers from The R&D Management Conference 2015
"(Fast?) Connecting R&D"
Istituto di Management, Scuola Superiore Sant'Anna, Pisa, Italy June 23-26

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Aphorisms

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1. *"What is research but a blind date with knowledge?"*
   (Will Harvey)

2. *"You can't catch trout with dry breeches"*
   (Miguel de Cervantes)

3. *"Understand life's mysteries - as mysteries to be lived"*
   (Robert Zemeckis)

4. *"If they give you ruled paper, write the other way"*
   (Juan Ramon Jimez)

5. *"I am not discouraged, because every wrong attempt discarded is another step forward"*
   (Thomas Alva Edison)

About the past, the present and the future of R&D

Claudio Baccarani - Jeff Butler - Alberto Di Minin
Andrea Piccaluga - Roberto Vona

Back in the 1990s there was a very nice and lively debate, among management scholars and practitioners, about the future of Research and Development (R&D) activities. The Science Policy Research Unit (SPRU) of the University of Sussex, in Brighton, was at the heart of this debate and a number of brilliant economists of innovation were inspiring and starting several new research fields which eventually became the backbone of a relevant part of innovation studies in economics and management.

Within that group of scholars there was also someone who was particularly active in visiting companies and creating a sort of intellectual bridge between theoretical and numbers-based academic studies and what was concretely being discussed by industrial managers with regard to innovation. His name was Roy Rothwell and some of his contributions are still heavily cited. Unfortunately, there is a sad tendency to "reinvent the wheel", which often attributes excessive emphasis to the most recent scientific contributions which, in many cases, are based on fundamental works of the recent past that are not always adequately cited.

Among many others, Prof. Rothwell's work on the "fifth generation R&D" represented an extremely valuable contribution in highlighting the fact that industrial, private R&D was opening up and getting increasingly connected with a number of external players. Rothwell's contribution, together with Gibbon's "Mode 1 and Mode 2" framework, can be considered among the most important pillars which, directly and indirectly, later allowed Henry Chesbrough to build the rightly renown "Open Innovation" model.

The SPRU group and the Manchester Business School's R&D Research Unit led by Alan Pearson were among the most inspiring elements of the R&D Management community which met - both intellectually and physically - through the *R&D Management Journal* and the *R&D Managament Conference*.

Both the journal and the conference have been accurately studying - and often anticipating - the evolution of R&D activities in both the private and the public sectors. Among such evolutions, scholars and practitioners have been discussing, in the last two-three decades, the transition from mainly closed R&D organisations to heavily open R&D structures.

The most recent evolution in these fields has occurred at an incredibly fast pace and scholars find it really hard, but at the same time extremely stimulating, to understand what is taking place in companies and universities and advise managers on what they should do in order to gain competitive advantage.

The present special issue of the Sinergie Italian Management Journal aims to provide a contribution in this direction. It is based on the selection of papers presented at the R&D Management Conference which was held in Pisa in June 2015. The result is a collection of five articles which all regard the evolution of R&D activities and their interconnection with Open Innovation dynamics.

The papers show a mix of methodological approaches, since three of them are mainly quantitative, one is qualitative and one is theoretical. Three of them regard specific economic sectors, i.e. the aerospace, pharmaceutical and cultural sectors, whereas the two others regard entrepreneurship and university-industry collaborations respectively. All of them pursue rigorous methodologies but at the same time strive to provide relevant managerial implications, and this is a feature which was considered important for their choice

The first contribution - *"Open within a box: an analysis of open innovation patterns within Canadian aerospace companies"* by Armellini, Beaudry and Kaminski - investigates whether and how aerospace firms in Quebec (Canada) adopt open innovation practices within their R&D strategies. The paper is built around data collected from the R&D senior managers of 31 companies in Quebec. The results indicate that innovation in the aerospace sector seems to be product-oriented, with low adoption of formal intellectual-property (IP) protection mechanisms if compared to other forms of protection such as secrecy and complexity of design. Nonetheless, significant evidence of external collaborations was found, ranging from external sourcing to co-development. The picture which emerges is therefore that of a sector in which companies collaborate but do not show relevant collaboration flows outside of the consolidated industry boundaries. Such a contribution is interesting because it accurately describes what is happening in this specific industrial sector, but also generates questions for the future. Will R&D dynamics in the next few years also foster new kinds of collaboration?

A second quantitative paper on a specific industrial sector, with the aim of exploring collaborations with different types of partners, is the one by Parente, Feola, Cucino and Gimigliano. In their *"R&D Management in Pharma Industry: the strategic role of CROs"* the authors claim that the Pharma Industry (PI) has undergone radical changes in R&D management in recent years. It is estimated that between one third and half of every dollar spent on R&D by Pharma companies now goes to Contract Research Organizations (CROs). After a systematic literature review on the structural changes affecting this industrial sector, data have been gathered on Italian CROs. The study highlights that CRO development was driven mainly by large pharma outsourcing strategies at first. Nowadays however, CROs also represent an ideal, ready-to-use technological infrastructure for small emerging biotech companies. Moreover, the authors have identified four business models that describe CROs' strategic approach, i.e. a transactional outsourcing model, a functional outsourcing model and a virtual outsourcing model divided into "mode 1" and "mode 2".

New types of collaboration are also explored by Capone and Lazzeretti in their study entitled *"Interorganisational networks and proximity: An*

analysis of R&D networks for cultural goods", in which the authors have attempted to measure the impact of various dimensions of proximity in forming innovation networks. They used a novel statistical methodology for modelling networks on the basis of a well-studied class of models called exponential-family random graph models. Their results underline the importance of various forms of proximity in the formation of innovation networks and the potential of such novel methodology to study large and complex networks in innovation studies and R&D management. The authors study an economic sector which is often mentioned, but not analysed so much in Italy, that is the cultural goods sector.

Small firms, and more precisely start-ups and their entrepreneurs, are the object of a theoretical study by Leonelli, Ceci and Masciarelli. In their *"The importance of entrepreneurs' traits in explaining start-ups' innovativeness",* the authors argue that several studies prove the existence of a relationship between entrepreneurs' personality traits and firms' performances. However, only a few of them focus on how these personality traits can be correlated with start-ups' innovativeness. The authors suggest that entrepreneurs positively influence start-ups' innovativeness whenever they are narcissistic, and have a high level of extraversion, agreeableness, conscientiousness, openness to experience and internal locus of control. In contrast, entrepreneurs with a high level of neuroticism and external locus of control negatively influence start-ups' innovativeness.

Finally, Severinsson, Forsberg and Baraldi, in their *"Creating University-Industry Interactions: How can University Management Connect Various Types of Interactions?"*, claim that University-Industry interactions (U-I interactions) such as joint collaboration projects are currently perceived as an important answer to innovation. However, while in search of detailed descriptions and analyses of U-I interactions, and especially of universities' efforts to create such interactions from the beginning, that is, before they become established relationships, the authors used an embedded case study methodology comprising of participant observation and over 60 in-depth semi-structured interviews on two interaction-stimulating tools employed by a distinguished Swedish university. The authors tried to addresses two research questions: 1) which different types of U-I interactions are created by these tools? and, 2) how does the university management connect these different types of U-I interactions? As regards the first question, it emerged that four types of U-I interactions were created, namely "participation", "cooperation", "collaboration" and "relationship". Regarding the second question, creating successful U-I interactions requires the university management to intervene on all the various interaction types although achieving deeper and long-term interactions may be hindered by the companies' and academic researchers' emphasis on simply exchanging knowledge or building contact networks rather than gaining tangible outputs from U-I interactions.

We would like to thank all the Chairs and the reviewers of the R&D Management Conference 2015, the colleagues and the practitioners who attended the Conference.

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Selected papers

Open within a box: an analysis of open innovation patterns within Canadian aerospace companies

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Fabiano Armellini - Catherine Beaudry - Paulo Carlos Kaminski

Abstract

Purpose of the paper: *This paper investigates whether and how aerospace firms in Quebec (Canada) engage open innovation within R&D strategies.*

Originality of the paper*: Despite the increasing interest of open innovation among scholars and practitioners, very few studies tackle the topic within traditional high-tech industry sectors, such as aerospace.*

Methodology*: This paper critically analyzes data from a survey carried out through in-company questionnaire-structured interviews with R&D senior management of 31 companies in the Quebec aerospace cluster. The survey addresses a wide range of innovative and collaborative practices often associated with open innovation, including managerial, cultural and strategic aspects of the concept.*

Findings*: The research indicates on an exploratory basis that innovation in the sector is product-oriented, with low adoption of formal intellectual-property (IP) protection mechanisms (e.g., patents) compared to strategic ones (e.g., secrecy and complexity of design). We found significant evidence of collaboration in the sample, ranging from external sourcing to co-development with strong support from local government, universities and research institutes. However, these open approaches are mostly confined within the boundaries of the aerospace industry and, therefore, not part of diversification and expansion strategies, but a natural consequence of complementarities required to develop complex aerospace products.*

Practical implications: *The paper promotes a discussion of the possible consequences of engaging in such limited open-innovation strategies in a world of rapid technological changes with significant risk of substitute technologies replacing entire niche markets. Also at risk are business opportunities that these knowledge-intensive companies lose when they do not disseminate internal technologies into different markets.*

Research limits: *All analyses in this paper are exploratory. This is mainly due to the number of samples, which is small in absolute terms, although representative in terms of the universe of analysis. This factor also limited our statistical analyses to non-parametric methods.*

Key words: open innovation; aerospace industry; Canada; innovation management

1. Introduction

The emergence of the concept of open innovation in the past decade has contributed to the existing research on collaboration, networking and outsourcing within R&D management. According to the OECD (2008), one

novelty of the open-innovation mindset, first suggested by Chesbrough (2003), is that this approach is not simply about external knowledge sourcing, but also comprises an outbound or inside-out core process. In this process, companies strive for diversification by finding alternate uses of internal knowledge assets in different markets. Another major contribution of open innovation to innovation theory is that it ties together a number of existing practices and impels firms to make these practices a part of their R&D strategies (OECD, 2008).

Openness is a matter of increasing importance for R&D managers in many companies. Previous studies about open innovation (e.g., Chesbrough and Crowther, 2006; Van de Vrande *et al.*, 2009) have already shown that this interest is not limited to high-tech and large firms. However, most case studies and analyses found in the literature focus on what Chesbrough and Appleyard (2007) called "open-dominated" industry sectors in which evidence of open innovation is more easily found, such as the open-source software, mobile electronics and pharmaceutical sector. Publications about open innovation in more traditional industries, the metal-mechanical segment, for instance, are sparse.

To measure the adoption of open innovation in a given industry, the straightforward way is to assess whether its companies use the tools and practices associated with open innovation. However, most of these practices existed long before the coining of the term (Freeman, 1991). In the case of aerospace, since the output is in general complex products, collaboration is required because no single player in the supply chain possesses all the knowledge to deliver the final product on its own (Anderson, 1995). Moreover, as aforementioned, there is more behind open innovation than the simple adoption of external sourcing and collaboration practices within the new product development (NPD) process. What distinguishes open innovation from earlier research on inter-organizational collaboration is the strategic adoption and the integration of such practices, so to achieve product and market diversification (OECD, 2008; West and Bogers, 2013).

What we intend to do in this paper is to understand the use of open-innovation practices within aerospace and its actual connection to open strategies, which, according to Chesbrough and Appleyard (2007, p. 73), "balances the tenets of traditional business strategy with the promise of open innovation." Our background question is to assess whether companies in the aerospace sector regard open innovation as part of their R&D strategies.

The lack of publications that address open innovation in this sector motivates the choice of aerospace in this paper. The reason for this gap in the literature may be because of the common sense opinion, which suggests that openness and aerospace are incompatible ideas due to the latter's close relationship to military and national sovereignty matters. As we will show in this research paper, though, aerospace companies in Quebec are indeed inclined to collaboration and external knowledge sourcing; the issue is to know whether this is part of open strategies.

To that effect, this paper analyzes the results of a survey-based research that took place between 2010 and 2013, whose goal is to probe open innovation patterns among Canadian aerospace companies. The research

is exploratory, based on 31 interviews, which is a representative sample in terms of the size of the population, but small in absolute terms, for statistical ends.

2. Theoretical framework

While studying the concept of open innovation, one must be aware of the competing scopes and definitions of the topic that "pollute" the literature. This lack of uniformity poses difficulties to advance our knowledge in the field and compare results from our peers, a problem noticed and stressed in review papers in the past (Dahlander and Gann, 2010; Huizingh, 2011). Sometimes, the issue is not the general comprehension of the scope of open innovation, but on focusing details of the concept (e.g., the development of absorptive capacities), giving less attention to the impact to the culture and strategy, which is essential to distinguish open innovation from simple R&D collaboration and outsourcing (West and Bogers, 2013).

For the purpose of this paper, we developed a theoretical framework that divides the scope of open innovation into the widespread three core process archetypes (Enkel *et al.*, 2009), namely: outside-in (inbound), inside-out (outbound) and coupled (inbound and outbound simultaneously).

Another dominant classification of the open innovation scope is that introduced by Dahlander and Gann (2010), which combines the direction (inbound or outbound) with the presence or not of pecuniary aspects. As a result, they came up with four possible types of openness: sourcing (inbound and non-pecuniary), revealing (outbound and non-pecuniary), acquiring (inbound and pecuniary) and selling (outbound and pecuniary). To take out the issues associated with each core process, we have performed a literature review combining the three core process archetypes with the four types of openness. The result is the list of issues presented in Tab. 1.

Tab. 1: Issues within open-innovation core processes

Core process	Type of openness	Associated issues
Outside-in	Sourcing	External knowledge sourcing and technology scouting
		Early integration of clients in NPD
		Early integration of suppliers in NPD
	Acquiring	Licencing in
		Spin-in and M&A
Inside-out	Revealing	IP portfolio activity
	Selling	Licencing out
		R&D services
		Spin-outs and divestments
Coupled	Sourcing/ Revealing	Co-development and participation at research consortia
		Crowd sourcing and peer production
	Acquiring	Venture Capital (VC)
		Licencing in (within collaboration agreements)
	Selling	Licencing out (within collaboration agreements)
		R&D services (within collaboration agreements)

Source: the authors

Within the scope of the outside-in process, one finds that issues are associated to external knowledge sourcing (Fabrizio, 2009; Veugelers *et al.*, 2010), technology scouting programs (Rohrbeck *et al.*, 2009), as well as early integration of suppliers and clients (Mankin, 2004), in-licencing (Fosfuri, 2006), mergers and acquisitions - M&A (Hagedoorn and Duysters, 2002). The inside-out process encompasses intellectual property (IP) management issues and out-licence (Lichtenthaler, 2010), provision of R&D services to third parties (Grimpe and Kaiser, 2010), spin-outs and divestments (Iturriaga and Cruz, 2008). Finally, the coupled process comprises venture capital (Van de Vrande *et al.*, 2009), crowd sourcing (Howe, 2006), peer production (Benkler, 2005; West and Gallagher, 2006) and many issues connected to collaborative agreements, namely: co-development (Nieto and Santamaría, 2010), research consortia (Fabrizio, 2006; Armellini *et al.*, 2011), licencing and R&D servicing within partnerships (Vanhaverbeke, 2006).

3. Methodology and data

3.1 Methodology

The database used for this paper's analysis was populated with the results of in-depth, quantitative, structured interviews with senior business executives and R&D managers. Since the literature exploring the adoption of open innovation practices in aerospace is rather close to non-existent, this survey performs an extensive investigation of open-innovation concepts, tools, practices, strategies and culture in order to verify which aspects of open innovation have indeed been adopted in aerospace product development.

The interviews were structured by means of a 71-question survey, split into three sections, which covers all relevant aspects related to open innovation, as we present in the appendix. In the first set of questions, we ask general information about the company in order to characterize the sample. In the second part, we measure how innovative firms are using the standards defined by the Oslo manual (OECD, 2005). Our scope within innovation management is technological innovations, that is, product and process innovations, covering the five years preceding the interview (from 2007 to 2011). Finally, in the third and more extensive set of questions, participants were inquired about open-innovation issues, according to the theoretical framework previously presented. In the end of this third section, we also asked some general questions about the corporate organization and culture towards open innovation, separated for outside-in, inside-out and coupled directions.

The data set consists of the responses to the 71 questions, along with the anecdotes and personal remarks given by respondents during the interviews, and the impressions during our visit to the plants. This rich data set provided insights on a number of research questions on how these companies manage innovation and openness within innovation. Although we were not able to find much more significant statistical correlations in the dataset, due to the limited number of samples, the descriptive analysis

of the data combined with personal remarks and anecdotes helped us to better understand, from an exploratory standpoint, the implication of open innovation for product development and innovative performance in the cluster. The aim of this paper is to provide insights to answer the following research questions: (i) Do aerospace companies of the Quebec cluster practice open innovation? How? (ii) Is the practice of open innovation in these companies connected to an open strategy?

3.2 Data

To investigate the questions formulated in the previous section, we present here some of the results of a survey that took place throughout 2012, with questions relating to the five-year period from 2007 to 2011. A total of 31 companies are represented in the sample of respondents. Data collection was performed by means of personal interviews with R&D managers or directors responsible for managing the innovation process within the company. All interviews were performed in-company and took on average 75 minutes. We registered as anecdotal any additional information that was provided outside the scope of the 71 questions in the survey.

All data collected was then compiled, treated and analyzed using Stata 11 software. The design of the survey questionnaire included some redundant questions intended to check consistency. In the correlational tests applied on these redundant questions, we verified the quality of the dataset and identified and eliminated eventual outliers. Finally, data was consolidated in order to allow a descriptive and critical analysis of the population under study.

Although the official Quebec aerospace industry directory includes more than 240 aerospace companies (AéroMontréal, 2012), through an analysis of the description of firms' activities in the directory, we found that only 77 companies within the cluster actually perform R&D activities and were therefore target of this research. It is worth remarking that, throughout this text, whenever we refer to the population of the research, we mean these 77 companies. Therefore, the subset of 31 companies interviewed for this analysis represent about 40% (31/77) of the population. As previously mentioned, this sample, although representative for our universe of analysis, is small in absolute terms, for the ends of statistical analyses. However, it is worth mentioning that our discussion and conclusions are not only based on statistics, but they are also based on the impressions and anecdotes extracted from 31 face-to-face interviews and visits to companies, which enriches our sources of analyses.

The aerospace industry embraces companies from many different technological fields due to the very nature of aerospace products, which combine different technologies. To classify the companies in the cluster from this perspective, we have used a technological classification system consisting of 13 fields that we adapted from the 18-field classification system used by AéroMontréal[1], the official think-tank of the cluster. By doing so, we came up with the evenly spread distribution in our sample as shown in the middle column of Tab. 2.

[1] Available on the company search engine at http://www.aeromontreal.ca/

Tab. 2: Comparison of technology distribution of the sample vs. cluster firms that perform R&D activities

Technology field	Sample # (%)	Population# (%)
ICT / software	5 (16%)	9 (11.5%)
Electronic systems / avionics	5 (16%)	11 (14.5%)
Aircraft parts	5 (16%)	8 (10.5%)
Maintenance, repair and overhaul (MRO)	4 (13%)	4 (5%)
Simulation equipment	3 (9.5%)	4 (5%)
Technical consulting	2 (6.5%)	17 (22%)
Mechanical manufacturing / machining	2 (6.5%)	8 (10.5%)
Materials	2 (6.5%)	7 (9%)
Aircraft	2 (6.5%)	3 (4%)
Instrumentation / automation	1 (3.5%)	2 (2.5%)
Defence equipment	0 (0%)	2 (2.5%)
Satellites and components	0 (0%)	1 (1.5%)
Speciality chemicals and lubricants	0 (0%)	1 (1.5%)
Total of firms:	31 (100%)	77 (100%)

Source: the authors

When compared to the distribution within the population (right column) of 77 companies that perform R&D activities, we realize that technical-consulting firms and mechanical manufacturing and machining firms are the two fields that are misrepresented in our sample. Additionally, we realize that three of the fields are not represented at all in our sample, but they are fields of limited relevance in the cluster (accounting for only 4% of the object of analysis). What is more, we also notice a slight predominance of information and communication technology (ICT) and electronic systems companies, which together stand for almost 1/3 of the sample. Nevertheless, we do not believe that these differences between the sample and the population distribution should bias the results towards one specific niche of the industry. With respect to firms' value-chain positions, we realize that roughly 61% of the sample are subcontractors, 26% are equipment manufacturers and 13% are prime contractors. As Tab. 3 shows, this distribution is similar to that of the population of the research.

These numbers show that we were able to raise a representative sample of the population under study. Even though the small sample size prevented us from the use of more sophisticated parametric statistical tools, we were still able to extract from the data some interesting insights for the research questions previously formulated as we intend to show in the following sections.

Tab. 3: Comparison of value-chain–position distribution of the sample vs. cluster firms that perform R&D

Value-chain position	Sample # (%)	Population # (%)
Prime contractors	4 (13%)	4 (5%)
Equipment manufacturers	8 (26%)	15 (19.5%)
Subcontractors	19 (61%)	58 (75.5%)
Total of firms:	31 (100%)	77 (100%)

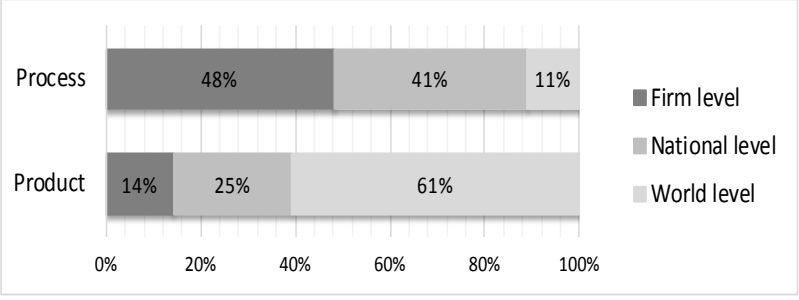
Source: the authors

4. Results

4.1 Technological innovation metrics

During the interviews, we asked companies about the innovations they had performed in the 5-year timespan from 2007 to 2011, using traditional innovation metrics as defined in the Oslo manual (OECD, 2005). All interviewed companies have performed at least one process or product innovation in that period. What is more, the vast majority of firms interviewed (about 74%) claimed to have performed both types of innovations. However, when asked about the global impact of such innovations, their responses are biased towards product innovation as Fig. 1 shows. Anecdotally, a couple of companies added that, according to their innovation strategy, they are intentionally follower-innovators in terms of process development, but leader-innovators or fast-followers in terms of product development. That seems to be the tendency in the industry as corroborated by the results shown in Fig. 1. With respect to intellectual-property (IP) protection, in our 31 interviews we have found that formal methods of protection (patents, trademarks and industrial design registration) are less used than strategic methods (secrecy, complexity of design and lead-time advantage), as shown in Tab. 4.

Fig. 1: Highest impact of product and process innovations



Source: the authors

The data indicate that less than half of the firms interviewed had submitted a patent demand in the five-year span. For those that did apply for a patent, the average number of demands is around 76, with a standard deviation of around 163. In other words, the findings indicate that very few companies in the sample patent their technologies with great intensity. For most companies in the sample, patenting is not a very common practice or not practised at all. This result follows the low-patent tendency observed in the aerospace industry globally and was somewhat expected, given the proximity of the sector to the military and matters of national sovereignty that demand secrecy.

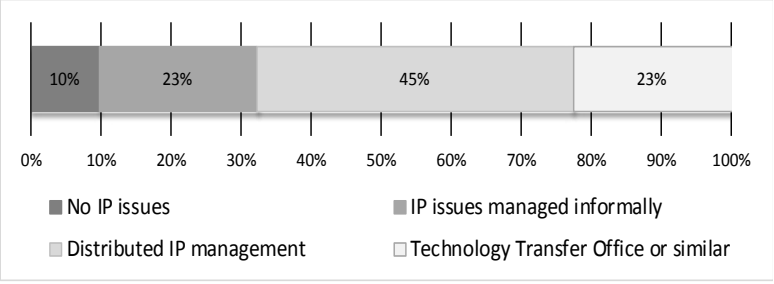
Tab. 4: Adoption of IP protection methods in the sample

Type of protection	IP protection method	Sample
Formal methods	Patents	48%
	Trademarks	48%
	Registration of industrial designs	23%
Strategic methods	Secrecy	61%
	Complexity of design	68%
	Lead-time advantage	58%

Source: the authors

In spite of that, IP protection is an issue in the cluster, and the companies are, therefore, well structured to manage it (see Fig. 2). Only 10% of the companies in the sample claimed not to have IP issues and almost 70% claimed to have a formal structure to deal with IP. Therefore, it is not a matter of organization; Canadian aerospace companies seem to allot low importance to patenting and other formal IP protection methods within their innovation strategies. This cultural attitude towards IP protection affects these companies' perceptions of open innovation as we will argue in the discussion section.

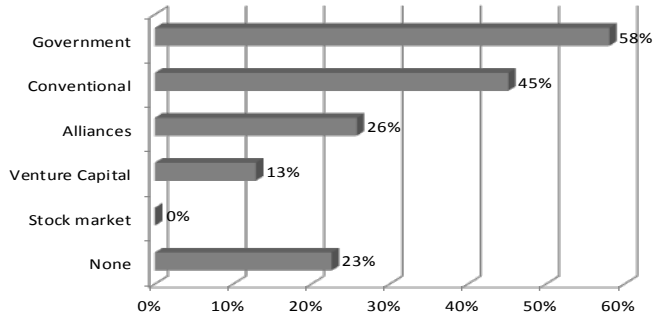
Fig. 2: IP management patterns



Source: the authors

Another important innovation metric is that of funding and public support. About 3/4 of the sample receive external funding for RD&I (research, development and innovation) activities. Fig. 3 summarizes the findings regarding the use of funding sources. One piece of information that stands out is that the government funds more than half of the companies in the sample. This result shows the importance of public support for local innovation. The results shown in Fig. 3 also reflect the lack of a well-developed venture capital (VC) market for the industry: only 13% of the sample makes use of this type of funding.

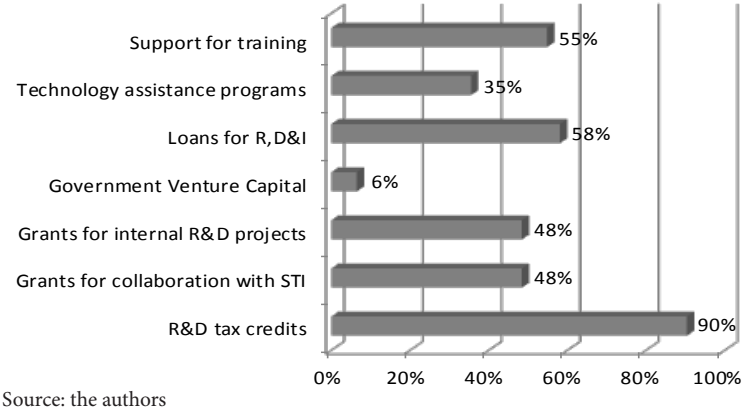
Fig. 3: External funding sources



Source: the authors

With respect to government support outside of funding, Fig. 4 summarizes the sample's use of innovation public policies. Excepting public VC, all policy types found a reasonable ratio of users within the sample. R&D tax credits were of particular importance to users with 90% of the sample benefiting from them. This remarkable result is due to the Canadian RD&I policy strategy, which, according to Bibbee (2012), does not privilege a few strategic technology sectors, but supports market-oriented innovation. This strategy is accomplished through horizontal incentive programs, such as the Scientific Research and Experimental Development (SR&ED) tax credit program, which costs the federal government approximately CAD$3.53 billion annually. It represented roughly 55% of the total expenditure of the government in support of business R&D in 2010-2011 (Industry Canada, 2011).

Fig. 4: Use of public policies in the sample



Source: the authors

To close this first section of the survey, we asked the companies to indicate where they operate across the R&D spectrum. All companies in the sample but one, which has a particular situation, described themselves as committing to development activities. About 2/3 of the sample claimed to perform applied research internally, and about 1/3 affirmed to perform basic research.

In the case of multinational companies (MNC) hosted in Quebec, a series of questions regarding R&D intensity of the local plant in comparison to the company's other plants revealed a very interesting piece of information: 86% of the plants in the sample have a level of R&D intensity that is equal to or greater than other plants owned by their global firm. This result demonstrates the importance of the Quebec cluster for aerospace R&D at global level. MNC establish subsidiaries in Quebec not exclusively to exploit local market advantages, but also to make use of the scientific and innovative skills in the cluster.

4.2 R&D management and openness

While engaging R&D activities, companies often make use of external sources of knowledge. Aware of this reality, the survey inquired about their importance throughout the R&D process: basic research, applied research and development. The importance was scored according to a seven-point Likert scale with no central point. Fig. 5 shows in a radar-like diagram the average importance allotted by the sample to a list of external and internal sources for each one of these stages. Since the number of sample respondents that claimed to be engaged to basic research was low (only 11 respondents), we attribute a lower reliability to the resulting graph for this specific phase.

Among the possible knowledge sources, we have included in the survey the CRIAQ (Consortium for Aerospace Research and Innovation in Quebec, in the French acronym), which is a partner in our research. CRIAQ is a government initiative created in 2000 to stimulate the establishment of government-funded collaborative pre-competitive research between local universities and aerospace companies (Armellini *et al.*, 2011) in a clear application of the triple-helix concept (Etzkowitz, 2008).

Post-hoc analyses using Wilcoxon signed-rank tests on the survey data revealed that, for the sample, internal R&D is significantly more important than all the other sources both for the applied research and the development stages. The same test also revealed that universities, research laboratories (public and private ones), industry associations and CRIAQ play a secondary but important role for applied research. In the case of development, this "second place" ranking goes to internal sources other than R&D, clients, suppliers and, again, to industry associations. Two players that ranked as least important in all R&D stages are companies from other industries and aerospace firms that are neither clients nor suppliers.

The previous information leads us to the finding that inspired the title of this paper - "Open within a box." The portrait that our survey database has revealed is that of an industry that is closed to other industries. Its members do perceive the importance of sourcing and collaborating with external actors, but these activities are mostly confined within the borders of the industry. What is more, they are normally limited to the supply-chain relationship (from the raw-material suppliers to the direct suppliers and clients up to the final customers, at the most).

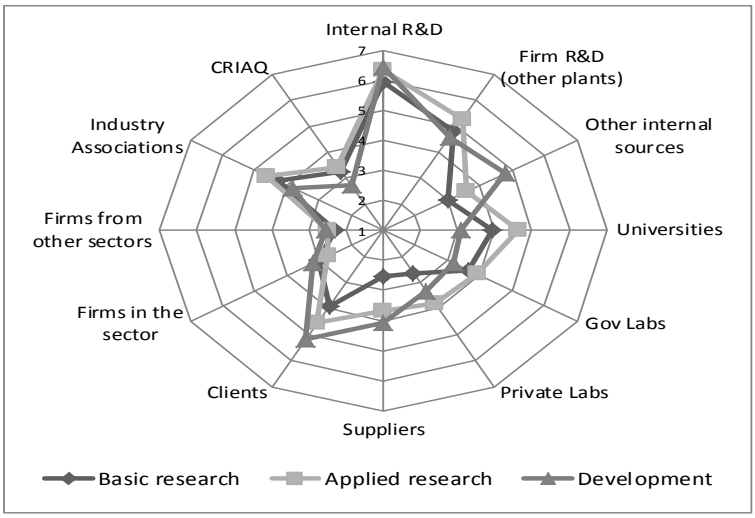
It is expected that the importance of certain sources vary according to the R&D stage. Although we were not able to demonstrate the variance for

all players from the statistical standpoint, due to the small sample size, we did confirm, using Wilcoxon signed-rank tests that universities ($p \approx 0.003$) and government laboratories ($p \approx 0.019$) are significantly more important during applied research phase. Another significant statistical finding is that internal sources (other than R&D) ($p \approx 0.070$) and clients ($p \approx 0.036$) are more important during the development stage.

In the survey questionnaire, we ask respondents to indicate the two most valuable players from the list of players presented in Fig. 5. Just one single company pointed to "firms from the sector" as a top-of-mind source of knowledge, and even this respondent clarified that he was referring to a couple of SMEs (small and medium enterprises) that attend for this company's specific affairs. Not a single company identified "firms from other sectors" as the most valuable source of knowledge for their RD&I activities. Then again, the three players that stand out in this analysis are clients (58%), suppliers (32%) and universities (26%).

In its turn, Fig. 6 reveals the types of partnerships and collaborations entered into by the companies in the sample. As one can see, participation in research consortia, such as the CRIAQ, and the within co-development projects overshadows other types of collaborations.

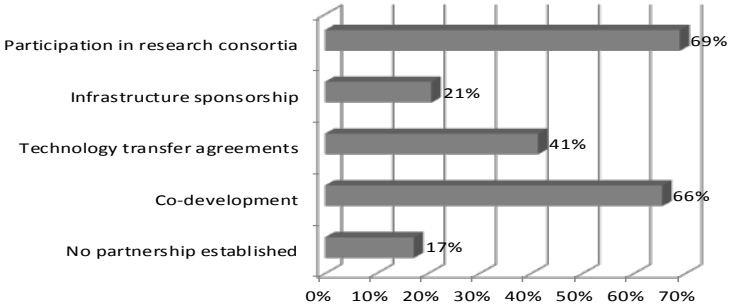
Fig. 5: Importance of sources of knowledge for R&D activities



Source: the authors

All these results show that collaboration for the aerospace companies in the sample, although existent, is limited to collaboration with close links in the value chain and with the science and technology infrastructure around the cluster (universities and research institutes). Their innovation is then open but within a box, limited to a well-defined and limited network of players that somehow complement each other. We shall get back to this open-within-a-box issue and its consequences later on in this article.

Fig. 6: Types of collaborative arrangements



Source: the authors

4.3 Open innovation and strategy

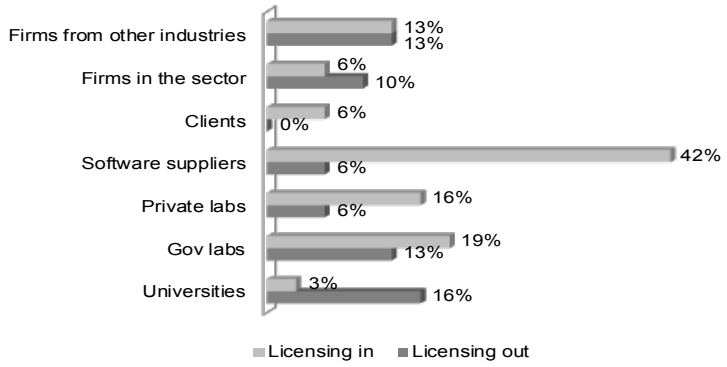
Recalling the types of openness defined by Dahlander and Gann (2010), there are two types of strategy for open innovation: pecuniary and non-pecuniary. Pecuniary strategies consist of external practices directly related to acquiring or selling companies. On the other hand, non-pecuniary practices refer to other knowledge sourcing and revealing processes, which may also involve monetary transactions, in spite of the name attributed to them.

Regarding pecuniary practices, the survey asked aerospace companies if they engaged in this the acquisition or selling of companies between 2007 and 2011. In the outbound direction, only 35% of the companies in the sample claimed to have performed any spin-offs or divestments; as for inbound spin-in and acquisitions, the ratio is even smaller at 23%. Regarding licencing, we found that only 26% of the interviewed firms have out licenced at least one technology or solution in the 5-year period, while 70% claimed to have acquired at least one licence in the same period.

As one can see, the rates for licencing out are quite modest, which is evidently due to the fact that the cluster does not patent very often. In the inward direction there is a higher share of positive responses, but when inquiring about the origin of such licences, we realize that most of them are for the acquisition of specific software tools needed either for product development or for software embedding in the company's own products. One finds evidence of this in Fig. 7, which shows that a high percentage (42%) of licence sources is software development firms. It is worth mentioning that percentages in Fig. 7 are absolute values, that is, calculated over the whole sample (31) and not only over those who claimed to perform licensing (in or out). That is to say that more than half of the 70% of companies that did licence-in, purchased software licences. In some cases, this was the only kind of licence they purchased.

We also inquired about another avenue of sharing internal knowledge, with equally modest results: only 16% of the sample claimed to provide R&D specialized services to third parties on a regular basis; 42% claimed to do it occasionally and the remaining 42% of the sample claimed they never do it.

Fig. 7: Licencing sources and destinations



Source: the authors

Finally, with regard to sourcing, we also asked companies about the importance of technology scouting as a form of external sourcing of knowledge and technologies. Here the sample is quite divided: 15 companies (about 48% of the sample) attributed a high importance to such practices, while the rest claimed not to find it important.

All these results show that, strategically speaking, the cluster is far from adopting open business models. Open innovation for the interviewed firms is equivalent to co-development with clients, suppliers, universities and other science and technology (S&T) institutes. As we have discussed in this paper's introduction, that is not exactly what open innovation is about.

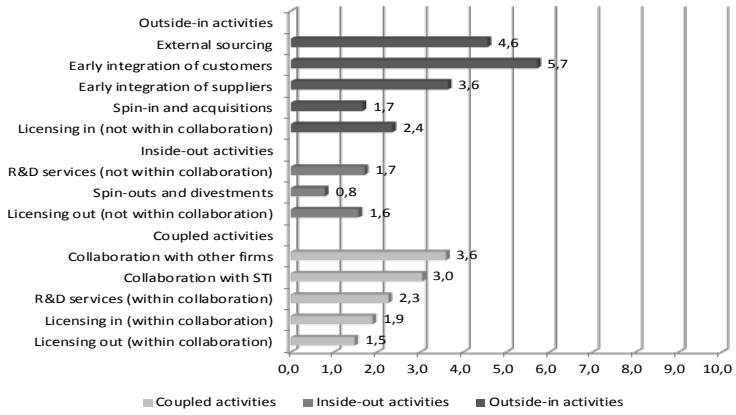
4.4 Open innovation and culture

Even though open innovation may not be a reality in the behaviour or in the strategies of Canadian aerospace, its principles may yet be present in companies' internal culture. That is why the interviews also assessed the cultural inclination of the sample towards open innovation. By means of a series of questions about the importance of a number of aspects of open innovation, we are able to determine which open innovation practices are part of the daily routine of the companies in the sample.

In Fig. 8, we show the level of importance attributed to each practice in a 0-to-10 scale and grouped by the three core processes identified by Enkel *et al.* (2009). As one can see, there is a higher predominance of outside-in practices, coupled activities are next and inside-out practices scored the lowest.

Using these numbers along with data gathered about the internal structure for managing outside-in, inside-out and coupled activities, indexes were created to score how well the core process related to the companies' culture. For the sample under analysis, the indexes found were 5.13 for outside-in, 2.79 for inside-out and 3.89 for coupled on a 0 to 10 scale. Once again, outside-in scored highest, followed by coupled, and inside-out had the lowest score. This result is consistent the finding from Enkel *et al.* (2009) finding that the outside-in core process prevails over the other two.

Fig. 8: Importance of open innovation practices as part of the day-by-day of Canadian aerospace firms in the sample



Source: the authors

Also with respect to openness culture, Chesbrough (2003) presents two potential barriers to the adoption of open innovation, the so-called closed-innovation syndromes: "not invented here" (NIH) and "not sold here" (NSH). The latter is related to the prevention of companies from revealing internal technologies for use by third parties, while the first is connected to a lack of trust in knowledge or technologies originating outside the company.

The following analysis on open innovation culture in the questionnaire focus on these syndromes.Through a set of questions designed to that effect, we found that about 81% of the interviewed companies were diagnosed with the NSH syndrome, and 83% with the NIH in the sample. Presenting with the syndrome does not mean that the company is not capable of performing open innovation, just that the company culture presents barriers to its implementation. The conclusion from this analysis is very clear: the companies in the subset adopt a closed mindset not only in their strategies but also culturally.

5. Discussion and conclusions

In this paper, we have discussed how the body of knowledge about open innovation formed over the past decade applies to high-complex product industries, such as the aerospace. Through the analysis of the dataset from an interview-based survey conducted in 2012 with 31 aerospace companies in the Montreal area, we investigated whether these companies adopt open-innovation practices and employ an open strategy as defined by Chesbrough and Appleyard (2007). The findings are summarized in Tab. 5. Within the open-innovation mindset, firms become increasingly aware of external knowledge that may be used in internal technologies and markets as well as external opportunities for the application of internal knowledge in different markets.

Tab. 5: Summary of findings for open innovation issues

Core process	Associated issues	Summary of findings
Outside-in	External knowledge sourcing and technology scouting	There is evidence of external sourcing, mostly through informal channels rather than formal programs (such as tech scouts). The most important sources are those within the cluster and in the firm's value chain.
	Early integration of clients in NPD	Client early integration was found to be the most relevant extra-muro practice in the sample.
	Early integration of suppliers in NPD	Some evidence was found in the sample, but much less relevant than client early integration.
	Licencing in	Barely used and in general restrained to specific engineering software suppliers.
	Spin-in and M&A	Very little evidence found in the sample, which was expected due to the small sample and short period covered by the survey.
Inside-out	IP portfolio activity	Very low activity, mostly concentrated on the use of strategic methods instead of formal ones (e.g. patents).
	Licencing out	Almost no evidence of out-licencing was found, except for companies engaged in ITC and software development.
	R&D services	The provision of R&D services was found to be an uncommon practice in the sample, mostly confined within subcontractor SMEs.
	Spin-outs and divestments	Very little evidence found in the sample, which was expected due to the small sample and short period of time covered by the survey.
Coupled	Co-development and participation at research consortia	This activity is the most important coupled practice in the sample, in great part due to CRIAQ. It is worth noticing that the nature of this collaboration is normally within the cluster (other aerospace companies and S&T institutes specialized in aerospace technologies).
	Crowdsourcing and peer production	Evidence of this kind of practice is close to inexistent in the sample.
	Venture Capital (VC)	Less important, as only 13% of the companies in the sample make use of this kind of funding.
	Licencing in (within collaboration agreements)	Even less evidence of in-licencing within the coupled mode than within outside-in.
	Licencing out (within collaboration agreements)	Even less evidence of out-licencing within the coupled mode than within inside-out.
	R&D services (within collaboration agreements)	Even less evidence of provision of R&D services within the coupled mode than within inside-out.

Source: the authors

As we showed in the previous sessions, innovation in the Quebec aerospace cluster is product-oriented, with lower adoption of formal IP protection mechanisms (e.g., patents) compared to the use of strategic ones (e.g., secrecy and complexity of design). We found much evidence of collaboration, external sourcing and co-development in the sample, with strong support from local government, universities and research institutes. However, this collaboration is mostly confined within the boundaries of the aerospace industry and, therefore, not part of diversification and expansion strategies. The evidence of open innovation found in the cluster is related to co-development with clients and suppliers or, at the most, within research consortia (e.g., CRIAQ), with universities and with other S&T institutes. This is a natural consequence of complementarities, rooted in the complexity of aerospace product development. Since aerospace products involve the integration of so many different and complex technologies

that hardly a single company could dominate alone, it is natural that aerospace companies seek to work in collaboration with companies with complementary skills and technologies. Therefore, they are indeed open, but within a limited and known network of collaborators or, as the title of this paper suggests, they are open within a box.

This is not what open innovation scholars advocate, though. In a world of rapid technological changes and the risk of substitute technologies replacing entire niche markets, companies should be aware of the risk of having their business suddenly vanish due to the emergence of a disruptive and unexpected innovation. For example, what would happen to the space-rocket industry as a whole if one of the so-called non-rocket space-launch (NRS) technologies discussed by and experimented on by physicists and astronomers (e.g., Bolonkin, 2003; Birkan, 2008; Siceloff, 2010) proves to be able to change the current technological paradigm?

Open innovation advocates that companies acting in one specific market under its current technology paradigm should look for external ideas that might be useful in their current markets. With a systematic outside-in approach (technology scouting, technology intelligence methods and so on), a given company should be able to identify and absorb a technology that might change the current business before it becomes an actual risk for the company. Additionally, the inside-out approach would be able to identify opportunities for the internal knowledge and technologies in new markets and business models that are currently unexploited.

However, it requires a strategic and cultural shift in order to benefit from this new mindset. In the strategic field, a major issue is to rethink the use of formal methods to protect IP. The only way to viably commercialize knowledge is through its clear definition through a patent, trademark or registered industrial design. The formalization of internal knowledge is also a means of making known to the rest of the world where the expertise of the company lies. However, secrecy and sovereign issues will not vanish from the industry; therefore, managing open innovation will continue to be more challenging in aerospace than in the so-called open-dominated sectors. In addition, we have found, in general, little interest from the aerospace companies we interviewed to overcome these difficulties because they do not think about open innovation strategically.

Policy makers engaged in promoting the aerospace industry, not only in Quebec but worldwide, should also be wondering how to stimulate the sector to think "outside the box." Changing an industry culture is not the goal of a public policy, but there are ways to make companies aware of the benefits of open innovation and of adopting formal methods of IP protection to allow internal technologies to be commercialized outside the company's current business model.

For the industry to truly engage open innovation, more evidence is needed to convince industry and government to adopt open models, by showing successful models and cases. Therefore, additional research on innovation management to explain if and how open innovation can be translated into competitive advantage is needed, for aerospace and to other mature highly complex industries where open innovation suffers from this same lack of credibility.

For practitioners and innovation managers in aerospace, the implication of this paper is to raise awareness of the lack of formal IP protection in the cluster. Its benefits go beyond the prevention of the use of internal IP from third parties, as it also increases a company's capacity to share and commercialize internal technologies on business models that differ from the current channels the company use. That should also enable aerospace companies to go beyond the "box" determined by their cluster.

Limitations and future perspectives

The dataset used in this research paper is limited to aerospace companies located in the Montreal cluster, and therefore additional research is required to confirm our findings under different contexts. Looking specifically to the aerospace industry, since it is characterized by global marketing and competition (Emerson, 2012), one should expect to find many similarities of other relevant aerospace clusters worldwide in the USA, France, Germany, Italy and Brazil, for instance. However, additional research within these locations is required to generalize our findings.

One such example is the survey that took place in Brazil (Armellini *et al.*, 2014), which can now be compared with the Canadian sample presented in this paper, in order to allow comparative analysis of different innovation ecosystems. This component of the research shall contribute to the understanding of current issues derived from the globalization trend of the last decades.

Another limitation of this research lies on its extensive and unfocused nature of inquiring. As we could not find previous research whose focus was to investigate open innovation within aerospace, our goal was to look for patterns as to know which practises and challenges, found in the body of knowledge of open innovation, make sense for this specific context. This paper enables future research on the topic to establish higher goals grounded over our findings, which provides managers and scholars an insight of what open innovation means for aerospace.

Still with respect of limitations of this research, one must also bear in mind that all analyses presented in this paper were performed under an exploratory basis. This is mainly due to the number of samples, which was too small in absolute terms, although representative in terms of the universe of analysis. This factor also limited our statistical analyses to non-parametric methods. Another limitation of our research is, because our data focus on a fixed five-year period (from 2007 to 2011), therefore we cannot anticipate the changing tendencies for the future. To cover for that, longitudinal analyses are required to evaluate the evolution of the adoption of the concept.

In spite of all these limitations, the results and analyses presented in this paper enabled us to understand how open innovation is apprehended in the Quebec aerospace industry. It might contribute as well to identify open innovation patterns from companies that are part of aerospace companies in other clusters around the world and even for companies from other mature high-tech industry sectors characterized by complex products.

With respect to future perspectives of research within the domain, besides those already mentioned when discussing the limitation of this present work, another possible path for future research is to incorporate

the notion of open business models (Chesbrough and Appleyard, 2007) when inquiring companies about their relationship with open innovation. For those undertaking this path, we strongly suggest the use constructs from other studies aimed at evaluation open business models, such as Chesbrough and Brunswicker (2013), as to standardize the analyses and allow for cross-industry comparisons in the future.

The most recent publications show that the current agenda of open-innovation research lies in the challenge of adopting effective inside-out models (Chesbrough and Winter, 2014), pursuing IP management decisions (Chesbrough and Ghafele, 2014; Henkel *et al.*, 2014) and overcoming cultural barriers for open innovation (West and Bogers, 2013). The perspectives for future research here presented are perfectly aligned with these tendencies.

References

AÉROMONTRÉAL (2012), "Profil de l'industrie aérospatiale", Report, AéroMontréal, Available online: *http://www.montrealinternational.com/*, Access: 2013-01-30.

ANDERSON M. (1995), "The role of collaborative integration in industrial organization: observations from the Canadian aerospace industry", *Economic Geography,* vol. 71 n. 1, pp. 55-78.

ARMELLINI F., KAMINSKI P.C., BEAUDRY C. (2011), "Consortium for research and innovation in aerospace in Quebec, Canada - a reference model for the Brazilian aerospace industry", *Product (IGDP)*, vol. 9, n. 2, pp. 101-109.

ARMELLINI F., KAMINSKI P.C., BEAUDRY C. (2014), "The open innovation journey in emerging economies: an analysis of the Brazilian aerospace industry", *Journal of Aerospace Technology and Management*, vol. 6, n. 4, pp. 462-474.

BENKLER Y. (2005), "Common wisdom: peer production of educational materials", *17th Annual Instructional Technology Institute at Utah State University*.

BIBBEE A. (2012), "Unleashing business innovation in Canada", *OECD Economics Department Working Paper No. 997, Organisation for Economic Co-operation and Development*.

BIRKAN M. (2008), "Beamed energy propulsion: research status and needs", *Proceedings of the 5th International Symposium on Beamed Energy Propulsion*, pp. 17-25.

BOLONKIN A. (2003), "Non-rocket transportation system for space travel", *Journal of British Interplanetary Society,* vol. 56, n. 7-8, pp. 231-249.

CHESBROUGH H.W. (2003), *Open innovation: the new imperative for creating and profiting from technology*, Harvard Business School Press, Boston/MA, USA.

CHESBROUGH H.W., APPLEYARD M.M. (2007), "Open innovation and strategy", *California Management Review*, vol. 50, n. 1, pp. 57-76.

CHESBROUGH H.W., BRUNSWICKER S. (2013), "Managing open innovation in large firms, Report from executive survey on open innovation", *Fraunhofer IAO*, 44p. Available online: http://openinnovation.gv.at/ Access: 2015-10-22).

CHESBROUGH H.W., CROWTHER A.K. (2006), "Beyond high tech: early adopters of open innovation in other industries", *R&D Management*, vol. 36, n. 3, pp. 229-236.

CHESBROUGH H.W., GHAFELE R. (2014), "Open innovation and intellectual property: a two-sided market perspective", in Chesbrough H.W., Vanhaverbeke W., West J. (eds.), *New Frontiers in Open Innovation*, Oxford University Press, Oxford, UK.

CHESBROUGH H.W., WINTER C. (2014), "Managing inside-out open innovation: the case of complex ventures", in Chesbrough H.W., Vanhaverbeke W., West J. (eds.), *New Frontiers in Open Innovation*, Oxford University Press, Oxford, UK.

DAHLANDER L., GANN D.M. (2010), "How open is innovation?", *Research Policy*, vol. 39, n. 6, pp. 699-709.

DELOITTE (2016), *Global aerospace and defense sector outlook: poised for a rebound*, Report, 26p. Available online: http://www.deloitte.com/ Access: 2016-05-24.

EMERSON, D. (2012), "Aerospace review – Vol. 1: Beyond the horizon: Canada's interests and future in aerospace", *Industry report mandated by the Government of Canada*, Available online: http://aerospacereview.ca/, Access: 2012-12-10.

ENKEL E., GASSMANN O., CHESBROUGH H.W. (2009), "Open R&D and open innovation: exploring the phenomenon", *R&D Management*, vol. 39, n. 4, pp. 311-316.

ETZKOWITZ H. (2008), *The triple helix: university-industry-government innovation in action*, Routledge, New York, p. 164.

FABRIZIO K.R. (2006), "The use of university research in firm innovation", in Chesbrough H.W., Vanhaverbeke W., West J. (eds.), *Open innovation: researching a new paradigm*, Oxford University Press, Ch.7, pp. 134-60.

FABRIZIO K.R. (2009), "Absorptive capacity and the search for innovation", *Research Policy,* vol. 38, n. 2, pp. 255-67.

FOSFURI A. (2006), "The licence dilemma: understanding the determinants of the rate of technology licence", *Strategic Management Journal*, vol. 27, n. 12, pp. 1141-1158.

FREEMAN C. (1991), "Networks of innovators: A synthesis of research issues", *Research Policy*, vol. 20, n. 5, pp. 499-514.

GRIMPE C., KAISER U. (2010), "Balancing internal and external knowledge acquisition: the gains and pains from R&D outsourcing", *Journal of Management Studies,* vol. 47, n. 8, pp. 1483-1509.

HAGEDOORN J., DUYSTERS G. (2002), "External sources of innovative capabilities: the preferences for strategic alliances or mergers and acquisitions", *Journal of Management Studies*, vol. 39, n. 2, pp. 167-188.

HENKEL J., SCHÖBERL S., ALEXY O. (2014), "The emergence of openness: how and why firms adopt selective revealing in open innovation", *Research Policy,* vol. 43, n. 5, pp. 879-890.

HOWE J. (2006), "The rise of crowdsourcing", *Wired*, vol. 14, n. 6, June 2006.

HUIZINGH E.K.R.E (2011), "Open innovation: state of the art and future perspectives", *Technovation*, vol. 31, n. 1, pp. 2-9.

INDUSTRY CANADA (2011), "Innovation Canada: a call to action", *Industry Canada,* Review of the Federal support to research and development - expert panel report.

ITURRIAGA F.L., CRUZ N.M. (2008), "Antecedents of corporate spin-offs in Spain: A resource-based approach", *Research Policy,* vol. 37, n. 6-7, pp. 1047-56.

KITMACHER G.H. (2010), "Reference guide to the International Space Station: Assembly complete edition", *CreateSpace Independent Publishing*, Charleston/SC, USA.

LICHTENTHALER U. (2010), "Technology exploitation in the context of open innovation: finding the right 'job' for your technology", *Technovation*, vol. 30, n. 7-8, pp. 429-435.

MANKIN E. (2004), "Is your product development process helping (or hindering),innovation?", *Strategy & Innovation*, Harvard Business School, November-December, Article Reprint No. S0411C, pp. 1-5.

NIETO M.J., SANTAMARÍA L. (2010), "Colaboración tecnológica e innovación en las empresas de base tecnológica: implicaciones de las relaciones con universidades y otros socios tecnológicos", *Revista Galega de Economía*, n. 19 (special issue), pp. 1-15.

OECD (2005), *Oslo manual: guidelines for collecting and interpreting innovation data, 3rd edition,* Organization for Economic Co-operation and Development.

OECD (2008), *Open innovation in global networks*, Organization for Economic Co-operation and Development.

OECD (2010), *Science, technology and industry outlook*, Organization for Economic Co-operation and Development.

OECD (2014), *The space economy at a glance,* Organization for Economic Co-operation and Development.

PENDRILL J., FERNANDEZ S. (2014), "Global aerospace report 2014", *Report, Clearwater International*, Available online: http://clearwaterinternational.com/, Access: 2015-03-20.

POLE K., WINDSOR R., BOAG P., LALONDE G.L., GARDNER N. (2006), "Aerospace industry", *The Canadian Encyclopedia.* Available at: http://www.thecanadianencyclopedia.com/. Retrieved: 2013/01/31.

PWC (2016), "Aerospace & defense 2015 year in review and 2016 forecast", *Report, PricewaterhouseCoopers*, Available online: http://clearwaterinternational.com/, Access: 2016-07-23.

ROHRBECK R., HÖLZE K., GEMÜNDEN H.G. (2009), "Opening up for competitive advantage - how Deutsche Telekom creates an open innovation ecosystem", *R&D Management*, vol. 39, n. 4, pp. 420-430.

SICELOFF S. (2010), "Emerging technologies may fuel revolutionary launcher", *North-American Space Agency (NASA)*, Available online: http://www.nasa.gov/. Access: 2014-02-15.

VAN DE VRANDE V., DE JONG J.P.J., VANHAVERBEKE W., ROCHEMONT M. (2009), "Open innovation in SMEs: Trends, motives and management challenges", *Technovation*, vol. 29, n. 6-7, pp. 423-37.

VANHAVERBEKE W. (2006), "The interorganizational context of open innovation", in Chesbrough H.W., Vanhaverbeke W., West J. (eds.), *Open innovation: researching a new paradigm*, Oxford University Press, Ch.10, pp. 205-19.

VEUGELERS M., BURY J., VIAENE S. (2010), "Linking technology intelligence to open innovation", *Technological Forecasting and Social Change*, vol. 77, n. 2, pp. 335-43.

WEST J., BOGERS M. (2013), "Leveraging external sources of innovation: a review of research on open innovation", *Journal of Product Innovation Management*, vol. 31, n. 4, pp. 814-831.

WEST J., GALLAGHER S. (2006), "Patterns of open Innovation in open source software", in Chesbrough H.W., Vanhaverbeke W., West J. (eds.), *Open Innovation: Researching a New Paradigm*, Oxford University Press, Ch.5, pp. 82-106.

Appendix - Survey questions

Section	Ref. #	Question
1 – General information	1	Information about the interviewee
	2	Year of establishment of the firm
	3	Placement of the company in the value chain within the sectors of the Aerospace Industry
	4	Total annual revenue OF THE PLANT in 2011
	5	Number of employees
	6	Is the firm on the stock market?
	7	Has the firm merged with another firm?
	8	Firm ownership and subsidiaries
	9	Level of education of plant's full-time employees in 2011
	10	Types of business activities performed in the plant
	11	How many clients does your plant have?
	12	How many suppliers does your plant have?
2 – Innovation in the plant	13	Product innovations introduced by the plant from 2007 to 2011
	14	Who developed these product innovations?
	15	Ratio of new-to-the-market innovations within these product innovations
	16	Ratio of already-in-the-market innovations within these product innovations
	17	Plant's average innovation lead time
	18	Level of impact of product innovations
	19	Process innovations introduced by the plant from 2007 to 2011
	20	Who developed these process innovations?
	21	Level of impact of process innovations
	22	Information about ongoing innovations
	23	Information about abandoned innovations
	24	Reason why the company did not innovate (in the case the respondent said no in questions 13 and 19)
	25	Innovation activities performed by the plant during the five years 2007 to 2011
	26	Percentage of the plant's total revenues reinvested in R&D in 2011
	27	Intellectual property (IP) protection methods used by the plant during the five years 2007 to 2011
	28	Estimation of the percentage of IP protected products in terms of their contribution to total revenue in 2011
	29	IP management structures
	30	External sources of RD&I funding
	31	Type of VC used (if applicable)
	32	The reason to engage in VC funding (if applicable)
	33	Use of public-sponsored programs during the five years 2007 to 2011?

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Section	Ref. #	Question
3- Open innovation patterns	34	R&D activities (basic research, applied research and development) performed in the plant?
	35	Importance of knowledge sources for basic research (if applicable)
	36	Importance of knowledge sources for applied research (if applicable)
	37	Importance of knowledge sources for development (if applicable)
	38	Geographical location of external sources of knowledge and technology of the plant
	39	Frequency of innovations provided by clients and/or users
	40	Use of mechanisms to early integration of clients and/or users
	41	Frequency of innovations provided by suppliers
	42	Use of mechanisms to early integration of suppliers
	43	Use of tools to integrate suppliers to the NDP process
	44	In-licencing during the five years 2007 to 2011
	45	Out-licencing during the five years 2007 to 2011
	46	Importance of peer production practices for the plant
	47	Frequency that the plant provides R&D contracted services to third parties
	48	Location of firms and organizations to which the plant provides R&D contracted services (if applicable)
	49	Establishment of collaborative alliances during the five years 2007 to 2011
	50	Types of partners and their geographical locations
	51	Name the two most valuable partners from the list provided in the previous question
	52	Reasons for partnering with universities and other S&T institutions (if applicable)
	53	Reasons for partnering with organisms other than universities and other S&T institutions (if applicable)
	54	IP protection culture
	55	Frequency of use of external sourcing practices
	56	Importance of acquiring or spinning-in companies for the firm's strategy
	57	Creation of spin-offs in the five-year period from 2007 to 2011
	58	Divestments and selling of business units by the firm in the five-year period from 2007 to 2011
	59	Importance of OUTSIDE-IN activities in the firm's daily routine
	60	Existence of a department formally responsible for implementing OUTSIDE-IN processes
	61	Existence of formal procedures for OUTSIDE-IN activities in the firm
	62	Relevance of the NIH (not-invented-here) syndrome to the firm's corporate culture
	63	Importance of INSIDE-OUT activities in the firm's daily routine
	64	Existence of a department formally responsible for implementing INSIDE-OUT processes
	65	Existence of formal procedures for INSIDE_OUT activities in the firm
	66	External visibility of firm's internal technologies
	67	Relevance of the NSH (not-sold-here) syndrome to the firm's corporate culture
	68	Importance of COUPLED activities in the firm's daily routine
	69	Existence of a department formally responsible for implementing COUPLED processes
	70	Existence of formal procedures for COUPLED activities in the firm
	71	Conclusion and self-evaluation: Is the firm is engaged on several collaborative fronts?

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R&D management in the pharma industry: the strategic role of CROs[1]

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Abstract

Purpose of the paper: *In recent years, the Pharma Industry (PI) has undergone radical changes in R&D management. It is estimated that between 1/3 and ½ of every dollar spent on R&D from pharma companies now goes to Contract Research Organizations (CROs). The main purpose of our paper is therefore to interpret major features and changes underpinning the CRO's role in the PI.*

Methodology: *The starting point for our work is a literature review on structural changes affecting the PI. Then, by means of a structured questionnaire, key data on Italian CROs was gathered. Finally, we collected additional first-hand information to better define emerging CRO business models.*

Findings: *Our study highlights that in the beginning, CRO development was mainly driven by large pharma outsourcing strategies. Currently, CROs also represent an ideal, ready-to-use technological infrastructure for small emerging biotech companies. Moreover, we have identified four business models that describe CROs' strategic approach, i.e. a transactional outsourcing model, a functional outsourcing model and virtual outsourcing models mode 1 and mode 2.*

Research limitations: *Further investigation will be useful to understand emerging business models in Italy and in other national innovation systems and to appreciate the changing role of CROs in the strategic management of biopharmaceutical innovation.*

Research and managerial implications: *Results could indicate CRO's next step towards so-called "virtual model", to meet the expectations of the most dynamic open innovation approaches in PI.*

Originality/value of paper: *The article, to the authors' best knowledge, is the first study related to the strategy and structure of Italian CROs.*

Key words: pharmaceutical industry; open innovation; contract research organization; business model

1. Introduction

The Pharmaceutical Industry (PI) is a particularly interesting case set when observing the evolutionary dynamics linked to a shift from a closed to an open model of innovation. It is, in fact, hard to find an industry that

[1] While this paper is the result of the authors' joint reflections, in terms of its final drawing up, paragraphs 1 and 3 are attributed to Roberto Parente, paragraphs 2, 5.2 and 6 are attributed to Rosangela Feola, paragraphs 4 and 5 are attributed to Valentina Cucino and paragraph 5.1 is attributed to Anna Gimigliano.

has been experiencing the same intensity and speed of change in the innovation model as the PI (Lowman *et al.*, 2012). As the first step of the revolution, Big Pharma outsourced most of their clinical study phases for newly proposed drugs to external services companies. Contract Research Organizations (CROs) are companies that have the delivery of services along the chain that leads to the development and validation of new drugs or new medical devices as their core business (Lowman *et al.*, 2012; Bryde and Joby, 2007), and have long been flourishing in the first wave of Open Innovation (Chesbrough, 2003). In the more recent second wave, the growing role of academia and young biotech start-ups can be observed in the discovery and pre-clinical innovation pipelines of Big Pharma. Such trends are consistent with the view that the locus of innovation is shifting from in-house R&D to small firms (Munos, 2009; Kneller, 2010) and public organizations (Powell *et al.*, 1996). Accordingly, Big Pharma is increasingly becoming the "network integrator" rather than the prime locus of drug discovery (Rafols *et al.*, 2014). The latter is moving from Big Pharma to small firms, but start-up companies are often too small and too inexperienced to accompany their product candidates throughout the validation process and to become appealing for a big company, so they often try to partner with CROs (Hecker *et al.*, 2003).

As a result, the structure of the PI has profoundly changed and CROs are at a crossroads in rethinking their strategic role in the innovation process of the PI.

Starting from these premises, the objective of this study is to analyze how CROs intercept and exploit opportunities arising from the evolution of the PI. In particular, the specific objective of the article is to ascertain how CROs are adapting their market strategy to respond to the development of start-up biotech and technology transfer activities in Public Research Centers.

2. Theoretical framework

Hierarchy and the market were conceptualized (Coase, 1937; Williamson, 2010) as the two opposing basic alternatives to organized economic transactions. Many structural factors play a role in the choice of one of the two modes when structuring economic transactions. Changes concerning such structural factors can push towards a shift in the dominant organizational model (Tushman and Nadler, 1978). The impact of such changes are particularly evident in relation to one or more elements of the value chain (Porter, 1985). Among others, the change in the perception of risk/uncertainty profiles (Knight, 1921), arising from the development of new technological paradigms (Dosi, 1982), may force incumbents to reorganize their processes of technological innovation in favor of a more decentralized one (Arora *et al.*, 2001). Specifically, there might be an accelerated shift from a model of "closed innovation" to that of "open innovation" (Chesbrough, 2003). The model of open innovation has overcome the old view of innovation as a specialized activity developed in the firm's R&D laboratories and favored a new vision in which innovation increasingly stems from external sources of knowledge.

This process of change calls the concept of core competencies in R&D itself into question (Torkkeli and Tuominen, 2002). In the open innovation model, a key competence is managing *Inbound* and *Outbound* sources of technology innovation.

The adoption of such inbound and outbound strategies in managing technology innovation by incumbents in an Industry create new entrepreneurial opportunities for new ventures that have specific know how in performing particular R&D activities (Chatterji, 1996; Roberts, 2001). Furthermore, such entrepreneurial opportunities are accumulative or additive in nature. New entrepreneurial ventures looking for opportunities in the market for technologies become entrepreneurial opportunities themselves for other players that have the capability of offering them valuable services.

As demonstrated by the literature on the topic, there are many organizational modes through which these R&D-based entrepreneurial opportunities might be exploited (Granstrand, 2004; Lichtenthaler, 2004; 2005). Such modes are distinguished by very dissimilar requirements in terms of acceptable levels of risk and uncertainty by partnering organizations (Chiesa, 2001).

From this point of view, the Business Model concept, as has been defined in the managerial literature, is a very useful tool to analyze how opportunities are exploited (George and Bock, 2011). According to Amit and Zott (2001), the Business Model "depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities".

Even if there is no single definition, the literature has conceptualized the business model in terms of value creation and value capture (Baden-Fuller and Haefliger, 2013; Zott *et al.*, 2011; Gambardella and McGahan, 2010; Casprini, 2015).

Baden-Fuller and Haefliger (2013) and Baden-Fuller and Mangematim (2013) distinguish four business model dimensions, two for value creation and two for value capture: customer identification, customer engagement, value chain linkages and monetization.

Customer identification refers to the firm's targeted user and customer groups. This dimension involves the identification of specific features of each customer group and, based on "who pays", distinguishes between the firm's targeted user and customer groups.

Customer engagement concerns the type and level of involvement of the customer and it distinguishes between "projects based system" and "pre-designed based system", often described as the "taxi" and "bus" system. Business models using the former create value by interacting with customers to solve specific problems, while business models using the bus system add value by producing one size fits all goods or services in a repetitive manner via standardized mass production processes (Baden-Fuller and Mangematin, 2013)

The third component, value chain linkages, can be described as the architecture of information flows and system governance. This dimension concerns the mechanisms the firm uses to deliver its product or service to the customer and refers to the well-known literature on vertical integration

(Williamson, 1985), and on hierarchy versus network (Lorenzoni and Baden-Fuller, 1995)

The last component of the business model, monetization, is often labeled as value capture with reference to the source of revenues. This dimension includes systems determining the timing of payments and methods of collecting revenue.

3. Structural change in the Pharmaceutical Industry

With the term "Pharmaceutical Industry", we refer to any industrial activity whose goal is the development, production and marketing of drugs licensed for use as medication (McGuire *et al.*, 2007). The PI is a very complex sector with several unique characteristics. It is highly globalized and diversified, strongly dependent on policies for drugs approval; it is also a knowledge intensive, highly innovative driven industry based on large investments in R&D, which has grown into one of the main sectors in the world. The global PI is currently worth US$ 300 billion a year. North and South America, Europe and Japan represent 85% of the global pharmaceuticals market. The 10 largest pharmaceutical companies control over one-third of this market, several with sales of more than US$10 billion a year and profit margins of about 30% (World Health Organization, 2015). The global Pharmaceutical and Biotechnology industry invests almost 15% of its total sales value in R&D making them the number one sector in R&D investment (Aamir *et al.*, 2014).

Over the past few decades, the PI has been characterized by a series of radical changes that have made it a favorite scenario in terms of shift in the innovation paradigm.

The main trigger for these changes was the decline in R&D productivity in the industry during the first decade of the 21st century (Dimasi *et al.*, 2003; Munos, 2009). On the one hand, investment in research and development had been increasing substantially. R&D investments represent 16% of sales in the 2000-2010 period, with a 60% increase compared to the previous decade (Lo Nigro *et al.*, 2014). At the same time, the risk associated with the development process is increasing as a consequence of two main factors: the focus of investments in new and more risky therapeutic areas (Pammolli *et al.*, 2011) and the more restrictive regulation for drug approval (Angell, 2005). In addition to this, the expiring of patents between 2010 and 2014 have put more than US$ 209 billion in annual drug sales at risk, resulting in $113 billion in sales of unlabeled drugs.

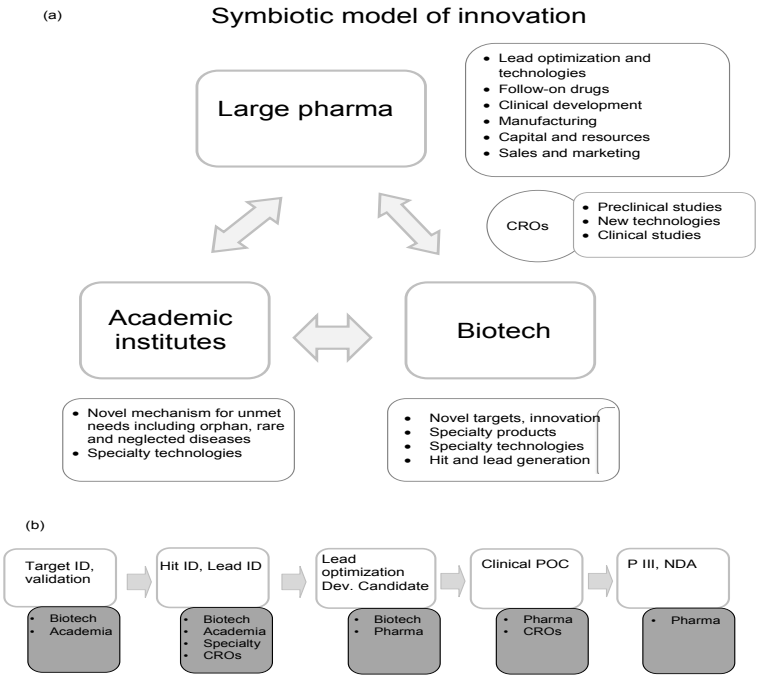
The cumulative effect of such challenges is reflected in a redesigning of the way development processes have been conducted inside pharma companies.

The first wave was that of outsourcing the R&D activities involved in the clinical steps of the validation of a new therapeutic target to third service companies, or Contract Research Organizations (CROs). The main goals of this strategy were to reduce overall costs and to concentrate internal R&D capabilities in filling the pipelines with promising new drugs. In addition, more recently, the partnering strategy of Big Pharma has been

extended to the enrichment of the pipeline itself, with the acquisition of promising new targets that have been discovered and initially developed outside. The key players of this second wave in redesigning the R&D process in the PI have been essentially a cohort of new small biotech start-ups. Often coming directly from academia, they are mainly focused on the drug discovery stage. Thanks to their scientific knowledge, and with the support of financial professionals specialized in high-risk investment, these spin-offs have proved themselves particularly effective in the operations of identification and preclinical validation of new therapeutic targets (Barden and Weaver, 2010). Licensing deals, co-development projects and M&A between pharma companies and young start-ups, have flourished in the last decade as a result. More recently, further developments in the acquisition strategies of Big Pharma have been noted: they are now more cautious in the selection process of their partners, choosing small biotech companies that have demonstrable relevance to tangible R&D problems (Mittra, 2007).

As a final consideration, the PI structure is becoming more and more complex (Khanna, 2012) and CROs appear to be a crossroads between large pharma and young start-ups (Fig. 1).

Fig 1: Pharmaceutical value chain and actors



Source: Khanna, 2012

4. The CRO Industry

The activities that are carried out by CROs spread all along the value chain of drug development, from applied research to pre-clinical, up to

clinical study and the complex regulatory procedures that are necessary for the approval and marketing of the drug, the phase of post-marketing surveillance (phase IV), strategic advice and a range of related services.

In general, the CRO primarily provides support in activities related to the central phase of clinical trials of biopharmaceuticals or diagnostic medical devices and in particular: study design, drafting of the medical protocol, selection of clinical sites, enlisting of patients, site monitoring, data collection and analysis of results according to bio-statistic parameters. In these cases, the term CRO is also used as an acronym for Clinical Research Organization.

The advantages of outsourcing to CROs can be better understood by identifying the strategic drivers that guide Pharma companies today, in particular (Piachaud, 2002):

- accelerated time to market, which is now a critical factor in the process of drug development. Thanks to their efficiency, due to a specialization strategy, CROs can more easily compete in a market where the life cycles of products are getting shorter;
- need to achieve the rapid global development of new products. Many CROs have now extended to a multinational presence and are able to help the development process through a combination of the local knowledge of mechanisms for authorization and the ability to follow project management at the global level;
- rapid access to the most advanced technologies and knowledge. Using technologically advanced infrastructure provided by the CRO will greatly reduce costs and eliminate the time of purchase and installation, as well as the training of company staff.

The biggest advantage for a company that outsources is in any case the opportunity to have a window on new science and technology findings, thus exploring the results of innovative research conducted globally in the field in a more rapid and effective way (Bianchi *et al.*, 2011).

At the same time, Pharma companies can take advantage of greater flexibility in the reallocation of the budget and internal resources to research and development, and therefore reduce fixed costs and business risks related to the various stages of experimentation of the new drug candidate.

The outsourcing of R&D in fact allows companies to continue development without long-term investments in core competencies (Torkkeli and Tuominen, 2002) and to stop the process, thus avoiding the repercussions that would otherwise occur if the process were entirely conducted in house. Despite being a very young industry, the service sector of medical research has grown dramatically over the past 15-20 years and assumed a key role in the PI, which is now turning to CROs as part of their processes innovation. It is estimated that one out of every two dollars spent in drug development is spent for CROs services (Cavalla, 2007).

Flexibility, technological expertise and cost consciousness, are therefore the main features of CROs, which is why they represent a key resource for the PI, which is facing increasingly challenging competition.

The market of CRO services is in constant growth, with forecast features that indicate a value of about 56 billion dollars for 2018, with a

CAGR (Compound Annual Growth Rate) of 12.8% from 2012 to 2018 (GBI Research, 2012).

CROs have also expanded their service portfolio over time, covering almost every segment in the value chain of drug development from clinical trials onwards.

Notwithstanding, unfortunately, except for a few notable exceptions (Lowman *et al.*, 2012; Bryde and Joby, 2007), CROs remain a rather underestimated subject in the literature.

5. Objectives and research methodology

The objective of this research is to analyze how CROs intercept and exploit the opportunity arising from the evolution of the PI. In particular, the specific objective of the article is to ascertain how CROs are adapting their market strategy to respond to the development of start-up biotech and technology transfer activities in Public Research Centers.

Our study is explorative in nature and aims to be the starting point for a more in-depth analysis of the business model of CROs.

The research is focused on the Contract Research Organizations involved in the registration procedures of clinical studies carried out by the Italian Observatory of Clinical Trials (OsSC) and listed in the Eleventh National Report on clinical trials of medicinal products in Italy that was published online by the Italian Drug Agency (AIFA) in 2012. The report indicated 96 CROs in Italy.

The research was divided into two steps.

In the first step, we collected data about the main features of Italian CROs by means of a questionnaire sent through the SurveyMonkey platform to 50 CROs operating in Italy. 22 questionnaires were received.

In the second step of the research, key players in the industry, including some of the above mentioned 22 respondents, were approached to investigate the business model they are applying and how they have evolved.

The second step was conducted through a telephone interview based on a semi-structured questionnaire.

5.1 Results: the structure of the Italian CRO Industry

The group of respondents was composed only of CROs located in central or northern Italy (in the group of 50 surveyed CROs, only one was located in the South), highlighting the importance of geographical proximity to major corporations and to the national technological districts as a factor of competitive advantage (Parente, 2008). Over 80% of respondent CROs were born in Italy in the 1990-2009 period, which is the period of maximum expansion of CROs.

About 68% of the CROs originated in Italy as start-up companies, a small percentage (14%) as industrial spin-off companies, but none as academic spin-offs. The remaining 18% had other origins, presumably from company merger operations. With respect to the size of the company, 50% of the sample was represented by small CROs with less than 50 employees,

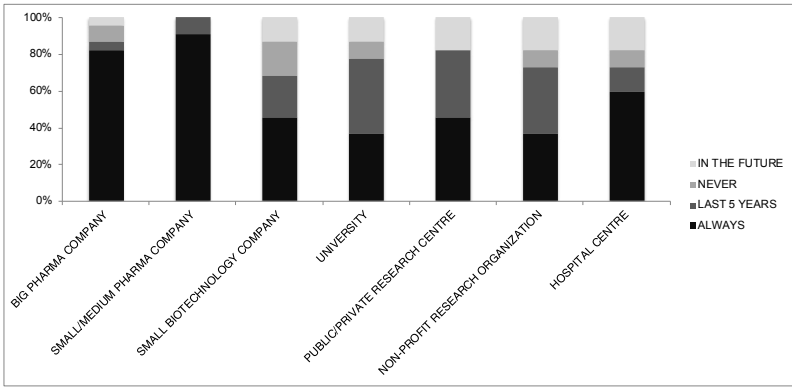
followed by micro CROs (27.3%) with fewer than 10 employees. The weight of medium-sized CROs, with fewer than 250 employees, and large CROs, with more than 250 employees, has amounted to less than 25%.

Almost all CROs served either Big (80%) or SME (90%) pharma companies.

Hospitals (59.1%) are the second most diffused typology of clients, probably because of the growing direct involvement of medicinal products for volunteers and patients in clinical trials.

Small Biotech is an expanding market segment for CRO. Almost 40% of the responding CROs have recently added this segment (23%), or are planning to do so in the near future (18%) (Fig 2).

Fig. 2: The customers of CROs in Italy



Source: Our elaboration

Recently, CROs have also intensified their collaborations with universities and public/private research centers. Our data revealed that CROs have established stronger relationships with universities (40.9%), public and private research centers (36.4%), and non-profit organizations (36.4%) involved in non-profit research on the safety and effectiveness of drugs over the past 5 years.

In particular, in accordance with previous research (Bonaccorsi and Daraio, 2007), our study highlights increasing interest in universities as a place of knowledge production and therefore as an important subject to work with on the technological transfer and development of results obtained from academic research. The respondent CROs provided in fact a total of 500 publications, 132 of which were based on studies carried out with university staff (26.4%).

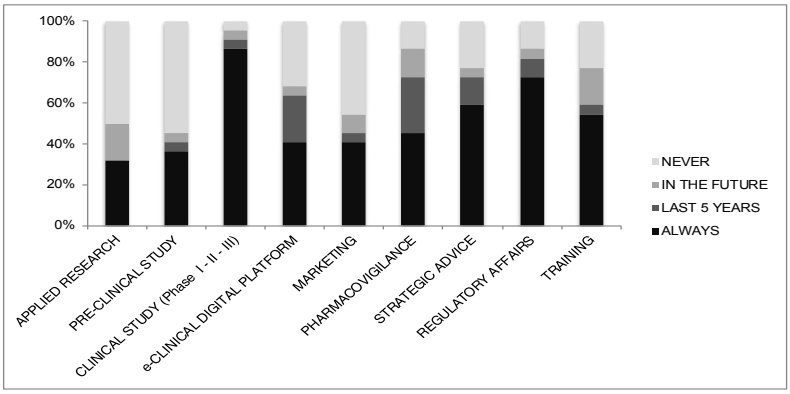
In order to rebuild current and prospective business positioning over time, the CROs were then investigated on the services offered to customers.

In line with the international context, analysis of the data showed that support for clinical trials in phases I, II or III has been the core business of CROs in Italy since their birth. In fact, more than 90% of the respondents said they had always been involved in the provision of services for clinical trials, followed by regulatory affairs (72% of the respondents), strategic consulting (59%) and training (54.5%).

The services that have grown in the last five years are related to pharmacovigilance (27.3%) and the supply of digital e-clinical platforms (22.7%). The former is probably due to the recent changes in the regulatory level for post-marketing drug safety; the latter is a service that can make the performance and control of clinical trials, as confirmed by international trends, easier and more efficient.

As regards future services to be included in the CRO's product portfolio, those in the field of applied research and professional training were highlighted (both at 18.2%). Such perspectives seem to be consistent with the previously showed data about the rising relevance of biotech and research centers that are increasingly looking forward to these kinds of services (Fig. 3).

Fig 3: The activities of CROs in Italy



Source: Our elaboration

5.2 Results: CRO Business models

Findings deriving from the first step of our research highlight the evolution of the PI where the key players in the second wave of R&D process redesign are essentially new small biotech start-ups and universities involved in technology transfer processes.

Starting from this evidence, our objective is to investigate whether and in what way CROs are adapting their business models to respond to the development of new players in the PI.

Based on the literature on the business model (Amit and Zott, 2001; Baden-Fuller and Mangematim, 2013; Baden-Fuller and Haefliger, 2013; Zott *et al.*, 2011; Gambardella and McGahan, 2010; Casprini, 2015) and considering the specific role of CRO organizations in the PI (the role of CROs have mainly developed along with companies specialized in providing services to pharmaceutical companies to support the development and market launch of a pharmaceutical product), we define the CRO business model on the basis of two main dimensions: value creation and the value capture.

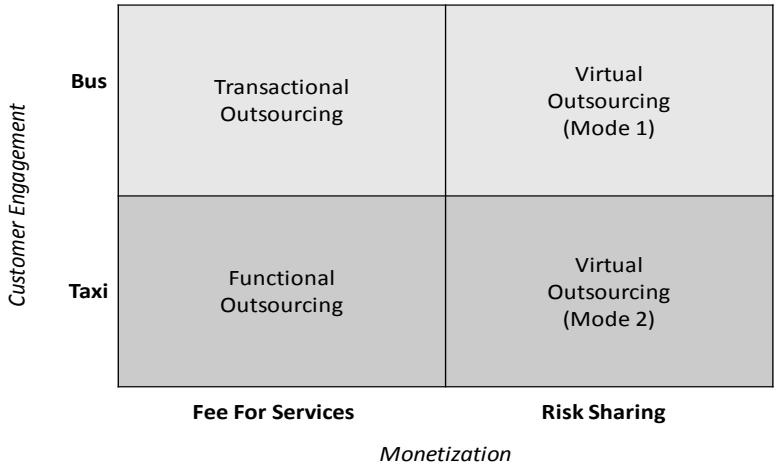
In particular, as concerns value creation, we take into account the customer engagement dimension analyzing the kind and intensity of

relationship that CROs entertain with different types of customers. We thus distinguish two types of customer engagement, the "Taxi" and "Bus" system (Baden-Fuller and Mangetamin, 2013) based on the capacity and disposition of CROs to adapt their services to specific customer needs.

As regards value capture, we focus our attention on the monetization dimension, analyzing the way in which CROs appropriate the value created in the activity, distinguishing between the fee-for-service approach (the company pays the CRO that provides the company with a fixed number of work-units that can support various activities based on the objectives of the project), and the risk sharing approach (where the CRO provides services in return for a participation in future profits related to a successful project).

Starting from such premise we distinguish between four different types of Business Models: transactional outsourcing; functional outsourcing; virtual outsourcing (Mode 1); virtual outsourcing (Mode 2) (Fig. 4).

Fig. 4: CRO: the business models of the firm



Source: Our elaboration

Transactional Outsourcing model

The transactional model is the initial, generally short-term, approach that is established between the CRO and the company. It is a tactical model, which was introduced with the first research contracts and determines that CROs offer services and competences as required within predetermined times and costs and according to the resources dedicated to a specific project by the company.

In terms of customer engagement, this model is suitable for a traditional outsourcing approach with no or limited involvement of the customer. The CRO offers its services to clients without any particular adaption to their specific needs, following a "one-size-fits-all" approach.

In financial terms, it is a fee-for-service model in which the CRO requires a payment calculated according to standard procedures, in relation to the resources used for the project-work.

In this kind of model, there is no stable and durable relationship between the customer and the CRO, and this usually entails drawbacks for both.

For the customer, this solution enables the company to assign multiple projects or more activities related to the same project to different CROs which are selected through various mechanisms: on the one hand, the company has to manage a complex situation with high fixed costs imposed by each CRO; on the other hand, the CRO has access to limited areas of the company and little opportunity to optimize the management of corporate business.

For the CRO, this model implies greater operational autonomy but, at the same time, an increase in costs due to the continued search for new customers.

Functional Outsourcing model

In this model, also defined as Functional Service Provider (FSP), the company relies on a CRO for one or more specific functions in support of various study protocols, for one or more products, in most therapeutic areas.

Companies choose to outsource specialized services to a very limited number of carefully selected "favorite" CROs (preferred providers). In this model a bond between the CRO and the customer is created and the services are defined on the basis of the customer's specific needs, following a "bespoke" approach. In financial terms, like the previous model, the payment system is based on a "fee-for-service" approach.

This mode of interaction enables the establishing of longer-term relationships between the CRO and the company, encouraging greater familiarity with projects and internal processes.

In general, the functional model favors the integration of the CRO in the R&D of pharmaceutical companies, enhancing the efficiency of services, but also the scalability of the process and the productivity of the firm.

The employment of CROs may lead to cost reduction by means of an incremental business and the customer benefits by leveraging costs and improving the management of activities that are necessary for the rapid and effective development of a biopharmaceutical product.

The FSP model has been widely adopted over time by CROs, according to different operational schemes that have proven to be all highly integrated and aligned to the objectives of the company, in order to facilitate the decision-making process.

Virtual outsourcing model - Mode 1

This model is characterized by a low level of customer involvement, with a limited personalization of offered services. From a financial point of view, the risk sharing model is the adopted approach.

This model, which is more difficult to verify in practice, follows a financial investment logic. The CRO funds the project with the objective of obtaining a capital gain, but it is not intended to build a stable relationship based on shared strategic goals.

In this case, the CRO's investments are finalized towards a potential exit opportunity to sell the technology to a third party (usually a big pharma company).

Virtual outsourcing model - Mode 2

In the virtual model - Mode 2 the CRO has further strengthened its positioning in the management of core and non-core activities for the "virtualized" biopharmaceutical company that very often decides to outsource globally.

The virtual CRO (vCRO) offers a comprehensive platform of collaborations and competences that a client/partner may have access to for the R&D process of a product: the strength of the CRO is to coordinate and optimize the entire study according to an end-to-end partnership model, also known as a "one stop shop".

The company preserves the task to create value and then to monitor the entire process, ensuring a fair exchange between partners, as well as good communication and transparency. This minimizes the fixed costs for infrastructure and staff, producing value quickly and therefore a faster return on investments.

The main difference compared to transactional and functional models concerns the revenue approach. In this model, partnerships evolve from a contract based on inputs/activities to payment based on output/performance, with the sharing of business risk among collaborators.

The virtual model applies well to biotech start-ups that generally do not have the financial resources to sustain projects, and in this way companies can focus on their asset innovation, leaving the other functions that are important for the launch of the product on the market, to the global CRO, whose experience can ensure much lower time and costs than those normally registered by an internal management.

Potential sources of risk still exist in this type of virtual organization and are linked to the significant tangible and intangible resources that are put together in a network. In any event, the latter also functions as a driver of profit sharing, which is determined by the contribution of each partner in the network to the project (Lo Nigro and Abate, 2011).

6. Conclusions

The data obtained from the questionnaires and the collection of information from public and private sources in the field enable some concluding remarks with regards to the structure of CROs in Italy.

CROs experienced a period of maximum expansion in Italy in the '90s and 2000s, in line with the globalization of markets, while the decline in the birth of new Italian CROs has become evident over the past five years, when only new offices of multinational CROs have started up in Italy.

The geographical position of our sample showed a significant concentration of CROs in northern Italy, in line with the ideal and the real distribution of large pharmaceutical centers and science parks nationwide.

CROs in Italy have also shown a profile of micro-small enterprises based on the number of employees and average annual sales, which are in line with the typical Italian industry.

In addition, the CROs stated that they were born in Italy especially as start-up companies through business ventures that are far from the

university sector. In this context, it must be mentioned that the workforce of these companies showed a growing connection to the academic field through the employment of high-profile people with a doctorate degree, as well as through the co-production of scientific publications.

Multinational CROs in Italy have appeared as dynamic companies that are ready to operate as full service providers with respect to Italian niche CROs, probably also due to frequent extraordinary merger and acquisition transactions over the conservative approach of Italian CROs.

The core business of a CRO was primarily related to clinical studies, although a diversification of services has recently been applied, including research at an early stage in the R&D process of pharmaceutical products and digital tools, like the e-clinical platform.

This study has made it possible to identify potential business models adopted by CROs in the framework of open innovation applied to life sciences and a structural change in the global biopharmaceutical industry.

What seems to emerge from the first study we carried out and from the information collected by interviews to some key players in the industry is that these models can co-exist within the same organization, but the discriminatory criterion between the choice of one model rather than another is not based so much on the type of customer but rather on the objectives and the specific strategy of the CRO itself.

The data analysis showed that the observed CROs in Italy are slowly changing their strategic perspectives and strive for an open model, in particular by shifting the outsourcing model from a transactional model to a functional outsourcing model.

In fact, growing collaboration has been recorded among CROs in Italy and their customers, moving away from the "fee for service" system in the direction of medium and long-term relationships based on the development of projects with the sharing of risks and returns.

The evaluation of the data could indicate the next step of the CROs in Italy towards the so-called "virtual" outsourcing to meet the most dynamic markets. Further investigations will be useful to analyse the entire landscape of CROs in Italy and the multiple variables involved in the onset of the CRO in the strategic management of pharmaceutical innovation.

References

AAMIR M., AHMAD S.T., MEHMOOD Q.S., ALI U., JAMIL R.A., ZAMAN K. (2014), "The Challenge of Patent Expiry: a Case Study of Pharmaceutical Industry", *Mediterranean Journal of Social Sciences*, vol. 5, n. 27P3, pp. 17-28.

AMIT R., ZOTT C. (2001), "Value creation in e-business", *Strategic Management Journal*, vol. 22, n. 6/7, pp. 493-520.

ANGELL M. (2005), *The truth about the drug companies: How they deceive us and what to do about it*, Random House Trade Paperbacks, New York.

ARORA A., FOSFURI A., GAMBARDELLA A. (2001), *Markets for technology: the economics of innovation and corporate strategy*, MIT Press, Cambridge.

BADEN-FULLER C., HAEFLIGER S. (2013), "Business models and technological innovation", *Long Range Planning*, vol. 46, n. 6, pp. 419-426.

BADEN-FULLER C., MANGEMATIN V. (2013), "Business models: A challenging agenda", *Strategic Organization*, vol. 1, n. 4, pp. 418-427.

BARDEN C.J., WEAVER D.F. (2010), "The rise of micropharma", *Drug Discovery Today*, vol. 15, n. 3, pp. 84-87.

BIANCHI M., CAVALIERE A., CHIARONI D., FRATTINI F., CHIESA V. (2011), "Organizational models for Open Innovation. Innovation in the Bio-pharmaceutical Industry", *Technovation*, vol. 31, n. 1, pp. 22-33.

BRYDE D.J., JOBY R. (2007), "Product-based planning: the importance of project and project management deliverables in the management of clinical trials", *R&D Management*, vol. 37, n. 4, pp. 363-377, September.

BONACCORSI A., DARAIO C. (2007), *Universities and strategic knowledge creation*, Edward Elgar, Cheltenam.

CASPRINI E. (2015), "Business model innovation: a typology", *Sinergie Italian Journal of Management*, vol. 33, n. 97, pp. 181-198.

CAVALLA D. (2007), "Pharma versus Biotech: Contracts, Collaborations and Licensing", in Taylors J.B., Triggle D.J. Eds., *Reference Module in Chemistry, Molecular Sciences and Chemical Engineering from Comprehensive Medicinal Chemistry*, vol. 2, pp. 225-238.

CHATTERJI D. (1996), "Accessing external sources of technology", *Research Technology Managemen*t, vol. 39, n. 2, pp. 49-56.

CHESBROUGH H. (2003), *Open Innovation. The new Imperative for Creating and Profiting from Technology*, Harvard Business School Press, Boston, Massachusetts.

CHIESA V. (2001), *R&D strategy and organisation: Managing technical change in dynamic contexts. Series on technology management,* vol. 5, Imperial College Press, Londra.

COASE R.H. (1937), "The nature of the firm", *Economica*, vol. 4, n. 16, pp. 386-405.

DIMASI J.A., HANSEN R.W., GRABOWSKI H.G. (2003), "The price of innovation: new estimates of drug development costs", *Journal of Health Economic*, vol. 22, n. 2, pp. 151-85.

DOSI G. (1982), "Technological paradigms and Technological trajectories", *Research Policy*, vol. 11, n. 3, pp. 147-162.

GAMBARDELLA A., MCGAHAN A.M. (2010), "Business-model innovation: general purpose technologies and their implications for industry structure", *Long Range Planning*, vol. 43, n. 2/3, pp. 267-271.

GBI RESEARCH (2012), Market Research Contract Research Organizations (CROs) Market to 2018 - Public-Private Partnerships to Strengthen Research Capacities and Advance Clinical Development Programs", April, www.researchandmarkets.com.

GEORGE G., BOCK A.J. (2011), "The business model in practice and its implications for entrepreneurship research", *Entrepreneurship Theory and Practice*, vol. 35, n. 1, pp. 83-111.

GRANSTRAND O. (2004), "The economics and management of technology trade: towards a pro-licensing era?", *International Journal of Technology Management,* vol. 27, n. 2/3, pp. 209-240.

HECKER S.J., PRESTON C., FOOTE M. (2003), "Production of high-quality marketing applications: strategies for biotechnology companies working with contract research organizations", *Biotechnology Annual Review*, vol. 9, pp. 269-277.

KHANNA I. (2012), "Drug discovery in pharmaceutical industry: productivity challenges and trends", *Drug Discovery Today*, vol. 17, n. 19/20, pp. 1088-1102.

KNELLER R. (2010), "The importance of new companies for drug discovery: origins of a decade of new drugs", *Nature Reviews Drug Discovery*, vol. 9, n. 11, pp. 867-882.

KNIGHT F.H. (1921), *Risk, uncertainty, and profit*, Hart, Schaffner & Marx, Houghton Mifflin Company, Boston, MA.

LO NIGRO G., ABBATE L. (2011), "Risk assessment and profit sharing in business networks", *International Journal of Production Economics*, vol. 131, n. 1, pp. 234-241.

LO NIGRO G., MORREALE A., ENEA G. (2014), "Open innovation: a real option to restore value to the biopharmaceutical R&D", *International Journal of Production Economics*, vol. 149, pp. 183-193.

LICHTENTHALER E. (2004), "Organising the external technology exploitation process: current practices and future challenges", *International Journal of Technology Management,* vol. 27, n. 2/3, pp. 254-271.

LICHTENTHALER U. (2005), "External commercialization of knowledge: review and research agenda", *International Journal of Management Reviews*, vol.7, n. 4, pp. 231-255.

LOWMAN M., TROTT P., HOECHT A., SELLAM Z. (2012), "Innovation risks of outsourcing in pharmaceutical new product development", *Technovation*, vol. 32, n. 2, pp. 99-109.

LORENZONI G., BADEN-FULLER C. (1995), "Creating a strategic center to manage a web of partners", *California Management Review*, vol. 37, n. 3, pp. 146-163.

MCGUIRE J.L., HASSKARL H., BODE G., KLINGMANN I., ZAHN M. (2007), "Pharmaceuticals, general survey", Ullmann's Encyclopedia of Industrial Chemistry.

MITTRA J. (2007), "Life science innovation and the restructuring of the pharmaceutical industry: Merger, Acquisition and Strategic Alliance behaviour of large firms", *Technology Analysis and Strategic Management*, vol. 19, n. 3, pp. 279-301.

MUNOS B. (2009), "Lessons from 60 years of pharmaceutical innovation", *Nature Reviews Drug Discovery*, vol. 8, n. 12, pp. 959-68.

PAMMOLLI F., MAGAZZINI L., RICCABONI M. (2011), "The productivity crisis in Pharmaceutical R&D", *Nature Reviews Drug Discovery*, vol. 10, n. 6, pp. 428-438.

PARENTE R. (2008), *Co-evoluzione e Cluster Tecnologici*, Aracne, Roma.

PIACHAUD B.S. (2002), "Outsourcing in the pharmaceutical manufacturing process: an examination of the CRO experience", *Technovation*, vol. 22, n. 2, pp. 81-90.

PORTER M.E. (1985), *The Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, NY.

POWELL W.W., KOPUT K.W., SMITH-DOERR L. (1996), "Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology", *Administrative Science Quarterly*, vol. 41, n. 1, pp. 116-145.

RAFOLS I., HOPKINS M.M., HOEKMAN J., SIEPEL J., O'HARE A., PERIANES-RODRÍGUEZ A., NIGHTINGALE P. (2014), "Big pharma, little science?: A bibliometric perspective on Big Pharma's R&D decline", *Technological Forecasting and Social Change*, vol. 81, pp. 22-38.

ROBERTS E.B. (2001), "Benchmarking global strategic management of technology", *Research Technology Management*, vol. 44, n. 2, pp. 25-36.

TORKKELI M., TUOMINEN M. (2002), "The contribution of technology selection to core competencies", *International Journal of Production Economics*, vol. 77, n. 3, pp. 271-284.

TUSHMAN M., NADLER D. (1978), "Information Processing as an Integrating Concept in Organizational Design", *Academy of Management Review*, vol. 3, n. 3, pp. 613-624.

WILLIAMSON O.E. (1985), *The Economic Institutions of Capitalisms: Firms, Markets, Relational Contracting*, Free Press, New York.

WILLIAMSON O.E. (2010), "Transaction Cost Economics: The Natural Progression", *American Economic Review*, vol. 100, n. 2, pp. 673-690.

ZOTT C., AMIT R., MASSA L. (2011), "The Business Model: Recent Developments and Future Research", *Journal of Management*, vol. 37, n. 4, pp. 1019-1042.

WORLD HEALTH ORGANIZATION (WHO). (2015), *Pharmaceutical Industry*, See: http://www.who.int/trade/glossary/story073/en/.

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Interorganisational networks and proximity: an analysis of R&D networks for cultural goods[1]

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Abstract

***Purpose of the paper**: The aim of this study is to measure the impact of various dimensions of proximity to form innovation networks.*

***Methodology**: We use a novel statistical methodology for modelling networks based on a well-studied class of models called exponential-family random graph models.*

***Findings**: Results underline the importance of various forms of proximity in the formation of innovation networks and the potential of the novel methodology to study large and complex networks in innovation studies and R&D management.*

***Research limits**: The research is mainly quantitative and contributes to the debate measuring the role and importance of various forms of proximity in innovation networks. Further analysis of how firms choose their partners is needed. Moreover, the analysis should be expanded to other contexts and industries in order to be able to generalise results.*

***Practical implications**: The work points out managerial implications in innovation studies and R&D management in order to guide firms when choosing their partners and forming a network.*

***Originality of the paper**: The study contributes to the debate on innovation network literature and tests a novel methodology to analyse large and complex inter-organisational networks.*

Key words: inter-organisational network; R&D; proximity; cultural goods; statistical analysis

1. Introduction

In the debate on the new trends in innovation studies and in research and development (R&D) management of innovation networks (Kastelle and Steen, 2014; Dagnino *et al.*, 2015), a significant amount of attention is increasingly being devoted to the role of similarity among partners in forming new relationships or partnerships (Molina-Morales, 2015; Capone, 2016; Ahuja *et al.* 2009).

Scholars of social network analysis have long discussed the concept of *homophily* (McPherson *et al.*, 2001), which is the tendency of two partners

[1] A previous version of this work was presented at the R&D Management Conference in Pisa in 2015 and at the International Workshop on 'Multivariate Techniques for the Analysis of Networks' with Prof. Wasserman in Salerno in 2014. We express our gratitude to the participants and to the three anonymous reviewers for their comments and advices.

sharing some characteristics (sex, age, habits, etc.) to have a higher propensity to develop some kind of relationships (friendship, business, etc.). An opposite stream of research has focused instead on the role of differences among partners, i.e., complementarities (Love and Roper, 2009). Previously, Granovetter (1973) had stressed the importance of the links formed with different or distant partners compared to the usual network of contacts who share redundant knowledge. For this reason, firms and organisations creating links with (cognitively) distant partners is crucial for the innovation and acquisition of new knowledge.

In recent years, literature on innovation studies and innovation networks has primarily focused on the concept of *proximity*, and particularly on what is known as cognitive proximity or geographical proximity (Molina-Morales *et al.*, 2014; Torre, 2011; Boschma, 2005). They especially pay attention to how the proximity between partners facilitates firms and networks' innovativeness (Muscio, 2006).

The debate on proximity is widespread, and some forms of proximity are perceived negatively as obstacles to collaborating or developing partnerships among firms and research centres or universities (Ben Letaifa and Rabeau, 2013).

Within research on innovation networks, many authors have focused on these issues, discussing as many as five to seven different forms of proximity which encourage the formation of relationships and innovation (Knoben and Oerlemans, 2006; Boschma, 2005). Generally speaking, there are at least five forms of proximity that are recognized in the literature: geographical, cognitive, organisational, institutional and social proximity.

However, most contributions on proximity and innovation networks, at this time, are mainly based on case studies or qualitative analysis (Ritter and Gemunden, 2003; Knoben and Oerlemans, 2006) with only a few quantitative exceptions (Balland, 2012; Morrison *et al.*, 2014; Molina-Morales *et al.*, 2014; 2015; Presutti *et al.*, 2011; Capaldo and Petruzzelli, 2014).

The aim of this study is to analyse the role of various forms of proximity in the formation of inter-organisational innovation collaborations and, specifically, to investigate how organisations choose their partners to form innovation networks. We investigate four forms of proximity that are commonly found in the literature: geographical, cognitive, institutional and social proximity.

The work contributes to management and innovation network studies through a novel methodology for network analysis that allows to analyse large networks. It also fits into the current availability of big data to support management decisions and the analysis of competitive environments.

The methodology can be of interest in management and innovation network studies as it allows the analysis and measurement of the impact of different types of variables in complex networks composed of numerous organisations and relationships (Pina-Stranger and Lazega, 2010; Broekel and Hartog, 2013). This application is particularly useful when it is necessary to investigate multidisciplinary inter-organisational networks in high-technology industries involving several national and international firms and organisations.

For these purposes, we adopt the novel statistical methodology of exponential random graph models (ERGMs) (Hunter *et al.*, 2008) that allows us to investigate and provide statistical estimations of the structure of networks.

This paper focuses on innovation networks operating in the business of high-technology applied to cultural goods (HTCG) (IRPET, 2012; Lazzeretti and Capone, 2016), analysing complex networks formed by 267 actors with more than 6,500 interrelationships. The cultural goods business is particularly relevant as it is gaining interest both from academics and policy makers for financial support and policy design (IRPET, 2012; Casprini *et al.*, 2014).

Our results underline the importance of various forms of proximity in the formation of innovation networks. Moreover, the work points out managerial implications in innovation studies and R&D management in order to assist firms in choosing their partners and forming an innovation network (Baglieri *et al.*, 2016).

2. Proximity and innovation networks

Network studies suggest that the evolution of the macro-structural characteristics of a network is driven by concurrent forces operating at the micro level (Powell and Grodal, 2005; Capaldo, 2015). This idea recalls sociological network approaches, such as those of Granovetter (1973), where knowledge sharing and partnership are related to various structural properties of individuals' positions in knowledge networks. For instance, he points out that social networks tend to be characterized by a dense subnetwork of stable relationships. Knowledge in these subnetworks tends to be homogeneous and redundant, whereas new ideas and radical innovation are achieved more frequently through new relationships with different partners.

Within innovation network studies (Bergenholtz and Waldstrøm, 2011), there is an increasing number of contributions using social network analysis (Van der Valk and Gijsbers, 2010; Sciarelli and Tani, 2014; Zanni and Pucci, 2012) and, in particular, new statistical methods to investigate network structure, thanks to big data and more powerful computers. More recent developments on quantitative analysis (Kastelle and Steen, 2014) consist in the longitudinal analysis of network evolution with simulation investigation for empirical network analysis (SIENA) software (Snijders *et al.*, 2010) and the statistical analysis of large and complex networks with ERGM (Lusher *et al.* 2013; Contractor *et al.*, 2006).

There are various examples of longitudinal studies of innovation networks. Among these, Balland (2012) investigates proximity and the evolution of collaboration networks in global satellite navigation systems in the VI Framework Programme from 2004 to 2007 and in the video game industry during the industry life cycle. Giuliani (2013) analyses the Chilean wine cluster, investigating its evolution from 2005 to 2010 and focusing on the core-periphery dynamics of the network, triadic closure and absorptive capacity.

As regards static analysis, De Stefano and Zaccarin (2013) identify the complex structure of relationships that is at the base of knowledge and innovation diffusion between two forms of knowledge-based relations: co-authorship and co-invention. They fit a multivariate ERGM model to capture the variety and the complexity of network interactions. Molina-Morales *et al.* (2015) analyse a foodstuffs cluster in Spain with ERGMs, while aiming to clarify the detrimental effects and complementarities that may arise among proximity dimensions. The authors find a negative effect of cognitive and institutional proximity dimensions on the creation of linkages in advanced stages of the cluster life cycle.

ERGMs are a class of statistical models for social networks (Lusher *et al.*, 2013; Contractor *et al.*, 2013). They account for the presence of network ties and, thus provide a model for network structure. They help us understand how social network ties are formed, and they are particularly useful in big data networks where the network structure is difficult to investigate.

Several recent contributions on innovation networks (Knoben and Oerlemans, 2006) stress the fact that innovation is fostered by various dimensions of proximity.

In the literature there are usually at least five dimensions of proximity, in which geographical, cognitive, organizational, institutional and social proximity increase the probability of forming a relationship with others (Boschma, 2005). In other words, firms and organisations establish collaborations more easily with other organisations of the same typology, co-located in the same area, belonging to the same group, etc. In fact, in network analysis, the role of proximity in innovation and network dynamics has recently received increasing attention in R&D and innovation management (Hohberger, 2014; Capaldo and Petruzzelli, 2014; Frenkel *et al.*, 2015) and marketing studies (Cantù, 2010; Johanson and Lundberg, 2007).

Geographical proximity and the co-location of economic activities have traditionally been considered important factors that affect competitiveness and innovation, beginning with Marshall and the concept of agglomeration economies, industrial districts and cluster debate. This is also related to the concept of tacit knowledge and its stickiness (Bathelt, 2004), particularly in regards to its importance to networks in local clusters and to competitive advantages (Tallman *et al.*, 2004), as well as the overall (new and traditional) role of the territory in supporting competitiveness and innovation (Rullani, 2013; Dezi *et al.*, 2011).

Cognitive proximity is a particularly significant element in promoting innovation, beginning with the concepts of absorptive capacity (Cohen and Levinthal, 1990) and knowledge bases (Nooteboom, 2000). Actors are primarily used to forming ties with other actors with whom they share the same knowledge base and competences, as interrelationships between different knowledge bases are more difficult, albeit more able to generate new knowledge and radical innovation.

Organisational proximity indicates that firms of the same corporate group are more willing to share knowledge and have an enhanced facility to innovate (Balland, 2012).

Institutional proximity is defined as the similarity of informal constraints and formal rules shared by actors of the same typology. Usually, this aspect is related to different institutional forms as described in the triple or quadruple helix model or found in university-industry relations literature (Etzkowitz and Leydesdorff, 2000; Bonaccorsi and Piccaluga, 1994; Campanella *et al.*, 2016).

Social proximity refers to the degree to which a common relationship can diffuse informal knowledge. It indicates that actors are usually more willing to form ties with other actors with whom they have a certain degree of trust or with whom they have shared previous R&D projects or experiences. Social proximity refers to the degree of common relationships, where friendship and trust are central, and it is supposed to diffuse informal knowledge and facilitate collaborations (Boschma, 2005). Balland (2012) indicates that social proximity favours collaboration and that partners are more likely to interact with each other than with others. This recalls the concept of the structural mechanism of transitivity and leads to the idea of triadic closure[2].

In this work, we hypothesise that four[3] forms of proximity, i.e., geographical, cognitive, institutional and social proximity, have a role in the formation of innovation networks.

3. Research design and methodological approach

The present study departs from previous studies on the cluster of high-technology applied to cultural goods in Florence and Tuscany (Lazzeretti *et al.*, 2011; Lazzeretti and Capone, 2016) and focuses on the role of various forms of proximity from a static perspective.

The analysis of the role of high-technology in its application to cultural goods indicates that it is a newly emerging business for firms in various industries, such as ICT, geology, chemistry, biology, engineering, physics and optoelectronics (Casprini *et al.*, 2014). In Tuscany, a technological cluster has been formed over time and it specialises in the restoration and enhancement of the rich local cultural heritage; it has also been recognised at the international level (Salimbeni, 2012; IRPET, 2012). Furthermore, in 2011, the Tuscan region recognised the relevance of this sector in contributing to the funding of the Technological District in Cultural Goods (TDCG) in order to support local R&D activities and improve local governance.

Recent research has been devoted to the study of innovation in the cultural goods domain. Casprini *et al.* (2014) analyses business models (BMs) in HTCG, analysing 30 firms in Tuscany and their business model innovations. They find that there are several BM evolution patterns in HTCG, thus providing useful insights into this unexplored area. Lazzeretti and Capone (2016) analyse innovation networks for cultural goods, pointing out that it is a particularly interesting business, where transversal

[2] See also Table 1 on the concept of triads and triadic closure.

[3] We did not investigate organizational proximity, as firms of the same group were not allowed to participate in the selected research projects and it is not relevant in this specific research context.

innovations are developed by inter-organisational networks related to several scientific domains.

Moreover, in the past years, technological districts have become the object of increasing interest of Italian authorities in relation to designing industrial policy for economic development and competitiveness (e.g., southern Italy) (Piccaluga and Cesaroni, 2003) or, specifically, technological districts in which high-technology is applied to cultural goods.

This study, in particular, focuses on the analysis of the innovation networks that were formed over a long period of time (1995-2012) through the use of ERGMs, which is a methodology used to analyse the structure of large and complex networks.

The analysis investigates co-participation in innovation policy-supported R&D projects developed for the conservation and enhancement of cultural goods and heritage. A database on funded R&D projects has been adopted by previous research (Lazzeretti and Capone, 2016). In this paper, this database is used to develop a new analysis on the role of various forms of proximity in the formation of R&D networks.

All of the public research centres and universities operating in the Tuscan region that are involved in cultural goods have been interviewed[4].

The database contains 42 projects. The projects were funded over a span of more than 15 years through regional, national and international calls for proposals involving small and medium enterprises (SME) and large firms, research centres and universities.

For each project, comprehensive information on the participants has been collected, including total investment of the project, different (leader) roles in the project, the financial contribution received by each partner, typology, competences of each partner, etc.

4. Innovation networks in cultural goods

The selected projects cover a time frame of more than 15 years (1995-2012). The projects are very heterogeneous in terms of financing institutions, requested budget and number of partners involved[5].

The R&D projects have been financed by regional, national and international calls for proposals. They involve 267 actors for a total of 386 presences (an organisation may participate more than once). Most actors are Italian, representing approximately 55% of the total. However, the composition of the network has an international dimension because European actors account for about 45%. In Italy, Tuscany and Florence are the most relevant locations, with more than 23% of the actors located in Florence and 18% in Tuscany. The Pisa area also plays a particularly important role with 35 players that represent approximately 9% of the total.

The analysis of the typology of actors confirms the high participation of research centres, universities and business firms. Altogether, these three groups account for over 75% of all actors, with a substantial role being

[4] The group is composed of 15 actors, including six research centres affiliated with the National Centre of Research (CNR) and nine university departments.

[5] See Lazzeretti and Capone (2016) for an analysis of these R&D projects.

played by research centres (about 31% of total), followed by firms (20.7%) which include both SMEs and large companies. In absolute terms, there are 68 SMEs and 12 large firms.

There are several scientific domains involved in the analysed projects. *ICT for cultural heritage* is the area that records the highest participation, with more than 86 actors (22.3%). This is followed by *conservation* with over 52 actors (13.5%); *optoelectronics* has 37 players (9.6%); and *3D visualization* records 30 actors (7.8%). If we consider ICT together with *3D visualization*, they account for more than 30% of the total. Other significant areas of expertise are *physics* with 28 actors (7.3%); *restoration* with 26 (6.7%); *chemistry* with 23 (6%); and *museums* with about 16 (4%).

As the global network is too numerous to analyse graphically (due to the large number of nodes), Fig. 1 shows the network by considering a co-participation to at least two projects. The full network of 267 organisations developed from the 42 analysed research projects along 15 years is presented in Appendix 1. Each node of the graph represents a firm or an organisation, while a line represents a tie between two actors, which means that those two partners co-participated in the same project(s).

The size of the nodes measures the number of ties they have in that period; therefore, larger nodes represent more central actors. The gradation of the grey colour of the nodes represents the location of the actors (Florence, Tuscany, Italy, Europe) while the shape indicates the typology (SMEs and large firms, universities, research centres).

In next section, we investigate the structure of the networks through the use of ERGMs in order to shed light on how actors have formed their innovation networks.

5. Exponential random graph model to analyse network structure

5.1 Model

The ERGM package for R, a cornerstone of the STATNET suite of packages for statistical network analysis (Hunter *et al.* 2008), provides tools for modelling networks based on a well-studied class of models called exponential random graph models (ERGMs) or p* models (Wasserman and Pattison, 1996).

The ERGM package allows users to obtain approximate maximum likelihood estimates (MLEs), simulate random networks from a specified ERGM and perform graphical goodness-of-fit tests (Hunter *et al.*, 2008).

ERGMs are based on the Markov chain Monte Carlo technique. They are a class of algorithms for sampling from probability distributions based on the construction of a Markov chain having stationary distribution as the desired distribution (Hunter *et al.*, 2008). The state of the chain, after a certain number of steps, is then used as a sample of the desired distribution.

The aim of the ERGM is to succinctly describe the selection forces that shape the global structure of a network. In other words, the network data set may be considered similar to the response in a regression model, where the predictors consist in variables such as the propensity for firms

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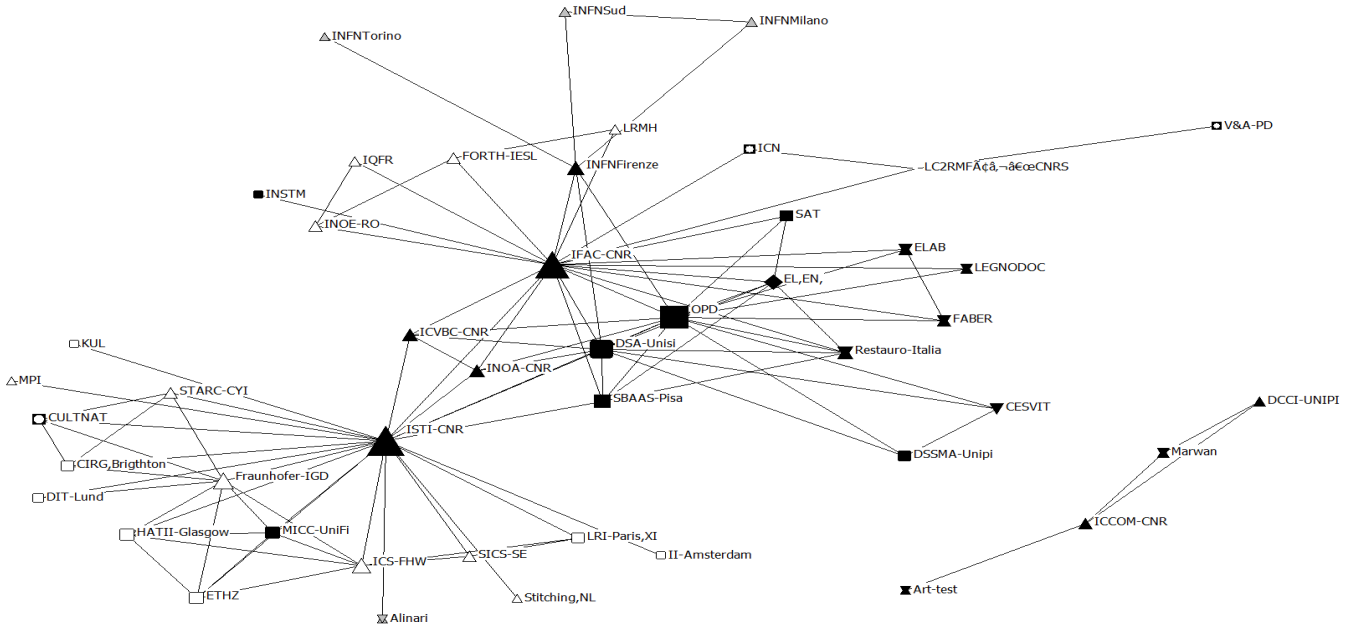
Fig. 1: The innovation network in cultural goods in Tuscany, (c>=2)



The value expressed by "c" stands for the minimum number of projects each couple of actors share.

Source: Authors' elaboration. Legend: Node colour per location: black for Florence and Tuscany; grey for Italy; white for Europe. Different shapes indicate typology. Size indicates a node's number of ties.

and organisations to form partnerships. This approach generates simulated networks, which can then be compared to the observed network in order to statistically assess network properties.

In contrast to the quite restrictive log-linear approach to modelling network dynamics (e.g. Wasserman and Faust, 1994), ERGMs are able to jointly analyse multiple variables as endogenous structural effects, such as tendencies toward transitivity, etc., and permitting a goodness-of-fit.

5.2 Variables of the model

The various meanings of proximity as a driver of the inter-firm cooperation have been converted into the variables which are represented in Table 1.

Geographical proximity is determined according to a co-location of the two actors forming a pair. This effect is also divided into four classes on the basis of partners' location in the municipality of Florence, in the Tuscan region, Italy or Europe.

Cognitive proximity occurs when organisations share the same kind of knowledge. Each firm and organisation is classified on the basis of its role in the project and in respect to its scientific domain (environmental, chemistry, conservation, diagnostics, physics, ICT, optoelectronics, restoration, 3D visualization). These are, in other words, the scientific domains of the actors related to the HTCG.

Institutional proximity is usually defined as when organisations have the same institutional form according to the Triple Helix Model, (Etzkowitz and Leydesdorff, 2000) as described in Balland (2012). Therefore, we classify actors on the basis of the following classes: research centres, institutions, small and large firms and universities.

Social proximity is then measured with the concept of triads (triadic closure) according to social network analysis and as in other contributions (Giuliani, 2013). It designates a closure process that takes place whenever at least three partners in a triad (or triangle) cooperate.

Tab. 1: Variables of the model

Variables		**Operationalization**
Various forms of proximity	Geographical proximity	Co-location
	Institutional proximity	Same typology
	Cognitive proximity	Same scientific domain
	Social proximity	Triads 
Control variables	Size	No. of projects involved
	Experience	Numbers of years since participating in cultural goods R&D projects
	Density	Degree
	Leadership	Leadership

Source: our elaboration

As previously noted, we do not investigate organizational proximity as firms of the same group were not allowed to participate in the selected research projects and it was not relevant in this specific research context. The organisation's attributes are also considered as control variables: *experience* in cultural goods projects (number of years), *size* (number of involved R&D projects) and, finally, the *role of the project leader*.

5.3 Estimation results

Estimations are made using the R software and the StatNET-ERGM package (Hunter *et al.*, 2008). The results are satisfactorily achieved in all models with specific differences that will be discussed below. The used procedure involves a step-wise search for the most significant and complex model.

Estimations are presented in Table 2[6]. Model 1 includes only the standard variable in the ERGM, that is, the existence of ties (edges). This is a single-parameter model, i.e., the simplest one, that posits an equal probability for all edges in the network, and it is not relevant in our case.

Beginning with Model 2, other variables are inserted. First, triads for social proximity are inserted, then location, related to geographical proximity; typology, related to institutional proximity; and, last, competences, related to cognitive proximity. Finally, the control variables are investigated, i.e., experience, number of project participations, role of project leader and SNA degree. The results of the Bayesian information criterion (BIC) and Akaike information criterion (AIC) tests follow a decreasing trend, suggesting an improvement of the model's significance and accuracy. Unfortunately, the variable for social proximity, i.e. triads, causes problems of collinearity if estimated with other variables, more so than if it is estimated only with edges. This is also highlighted from significance tests that are lower if this variable is included. A goodness-of-fit to the real network has been carried out as also advised by Hunter *et al.* (2008).

Social (network) proximity has been analysed through triads according to the concept of triadic closure[7], which designates a closure process that takes place whenever at least two partners in a triad (triangle) have cooperated. Consequently, this means that, over time, the most frequent partners of one's partners are destined to become one's own partners and that firms interact with closer actors in terms of relational distance instead of moving away from their network of action. Unfortunately, this variable causes some problems with collinearity, and it is estimated without other forms of proximity.

If we look at the various kinds of proximity first, we find that *geographical proximity* is significant and positive. This means that actors

[6] The estimates of parameters are interpreted on the basis of the gap between the network under study and a totally random network. In other words, a positive parameter indicates that the level of presence for the factor is higher in the examined network compared to a casual network.

[7] This concept indicates that, if A has two unconnected partners, B and C, the latter are probably going to build a relationship, thus closing the open triangle.

tend to develop partnerships with geographically close associates and it confirms the significant role of clustering in HTCGs because actors search for missing competences within the local cluster before turning to outside (cluster) experts.

Institutional proximity is positive as well, although the related parameter is lower than the previous one. It indicates that actors generally enter into partnerships with associates who belong to the same typology: firms with firms and research centres with research centres, etc. This is an unexpected outcome, since one would assume a stronger cooperation between heterogeneous actors aiming at solving complex issues in the implementation of new products or services, and not least because of the business under study, in which heterogeneous partnerships often develop innovation among agents of the triple helix.

Cognitive proximity is significant and positive, and this underlines that firms usually develop partnerships within the same scientific domain. This means that actors are more used to forming ties with other actors with whom they share the same knowledge base and competences. This could be relevant for funded R&D networks where innovations are more incremental than radical innovation among cognitively closed partners.

As for the values of the parameters, being all dummies, they can be compared with each other. The highest value is that of cognitive proximity, followed by geographical proximity, social (network) proximity and, finally, institutional proximity; this lowest parameter was expected to be negative.

Tab. 2: ERGM Estimations

Variables		Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Edges		-2.280*** (0.018)	-7.4480 (0.4261)	-2.839*** (0.0292)	-2.981*** (0.0317)	-3.190*** (0.0033)	-5.718*** (0.0862)
Geographical proximity	Same location			1.1560*** (0.0378)	1.1457*** (0.0379)	1.1050*** (0.0387)	1.0192*** (0.446)
Institutional proximity	Same typology				0.5525*** (0.0403)	0.4072** (0.0418)	0.3510*** (0.0456)
Cognitive Proximity	Same competences					1.5170*** (0.0442)	1.3722*** (0.0503)
Social proximity	Triads		0.9641*** (0.020)				
Firms or organisation 's attributes	Experience (years)						0.0215*** (0.0043)
	No. project						0.0696*** (0.0147)
	Leader						-0.0814*** (0.0136)
	Degree						0.0334*** (0.0000)
Tests	AIC	21.935	32.667	20.966	20.790	19.757	16.843
	BIC	21.943	32.684	20.983	20.815	19.791	16.911

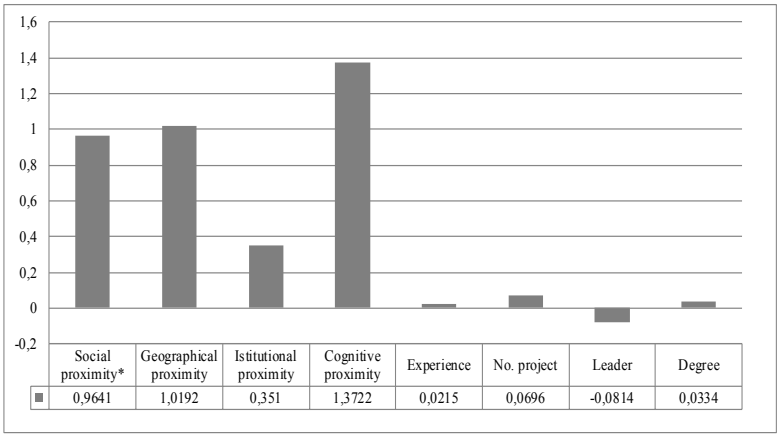
Source: Authors' elaborations. Standard error in brackets. ***: significance at 0.01 level.

When we come to the analysis of control variables, we find that more experienced partners with greater planning ability usually have more relationships. Notwithstanding this, in one model (N. 6), the number of project participations is very close to zero. Even the role of the project leader

is close to zero, but on the negative side, which means that having played a coordinating role in the past does not always lead to a central position in future relationships.

Model 6 is the most adequate model in terms of test results. Its different parameters are graphically represented in Figure 2, together with the parameters of the social proximity of triads (Model 2). Figure 2 shows, at a glance, all the estimated parameters for the different kinds of proximity.

Fig. 2: Graphical representations of estimated parameters



Source: Authors' elaborations. *: Estimations from Model 2.

6. Conclusions and discussion

The aim of the present work was to investigate inter-organisational innovation networks, specifically regarding how innovation networks have been formed over a period of 15 years.

Our intent is to support the decision-making process involved in the choice of partners by analysing the strategic role of proximity. We adopt a new statistical method of analysis useful to study large and complex networks at a certain point in time, such as those of physics, chemistry and ICT that can be found in HTCG.

The methodology turns out to be an interesting tool for analysing and measuring the typologies of proximity in a large network of 267 actors and more than 6,500 relationships, which is not possible to analyse visually like in a graph (see for instance Appendix 1). Another positive contribution is that the ERGM also allows statistical estimation of the used parameters to obtain a goodness-of-fit of the model. The results are of relevant interest and help to deepen our knowledge on innovation networks formation and in particular in the HTCG business.

Various forms of proximity are then presented in their order of importance. *Cognitive proximity* is the most important of the parameters, ranking first. It indicates that actors tend to associate with partners with whom they share the same knowledge base, which facilitates smooth communication and exchange of information.

This is somehow contrary to the idea of the *strength of weak ties*, according to which relevant knowledge for innovation of a more radical nature is the farthest from the usual sources. A further interpretation can be that when an organization collaborates with well-known partners, these collaborations assume routine characteristics and, as a result, do not produce very innovative projects. In this study, this is difficult to ascertain this because empirical analysis cannot provide such in-depth insight.

Geographical proximity results represent the second most important of all proximity parameters. This underlines the relevance of innovation in the network under examination and the important role played in the Tuscan setting by both the cluster and the geographical closeness of the innovation partners. When looking for new partners with the aim of creating an innovation network, the first step is usually to try to find them in the local cluster - in which trust relationships and social capital already exist - and, only if not available, to search for them among more distant actors. The need for external competences can be due to different reasons: for example, of the specific competences that are necessary to participate in a European innovation project within the new Horizon 2020 Framework Program, which expressly requires international partnerships.

Social proximity is also positively correlated with the creation of innovation networks. In this study, we analyse triads in order to explore the relational behaviour of actors. Triads have a positive and high parameter, which suggests that the formation of innovation partnerships takes shape among partners of partners, since trust-building and experience processes with those partners have already been established in other or previous innovation networks.

Finally, as concerns *institutional proximity*, the estimations show that it is also positively correlated with the creation of innovation networks. This result is unexpected given that, in this business, firms establish many partnerships with research centres and universities, whereas the analysed networks show a tendency to enter into partnerships with similar actors. In fact, what emerges from the analysis of the various networks is that firms create partnerships with other firms and only a few research institutions, which, in turn, build relationships with each other. In other words, institutional proximity points to homogeneity of relationships.

The analysis of various forms of proximity partially confirm the idea that analysed formal innovation networks are mainly based on incremental innovations and on networks with knowledge redundancy.

Regarding managerial implications, the results prove that innovation networks in a complex business, such as that of HTCG, are developed by incremental processes, through the application of new products and procedures that are already implemented in other contexts (chemistry, physics, etc.) to cultural goods. Consequently, firms and managers should primarily focus on the creation of strong networks based on the competences of their original scientific domain, hence exploiting the cognitive proximity shared by actors. Then, firms should move beyond their own network of action and habitual contacts in order to undertake paths for developing more radical innovation stances.

As far as the limits of the research are concerned, further research on proximity should be developed as its different forms are not always perceived unanimously in the literature. Some contributions discuss the term *technological proximity* which is explained as the need to access specific expertise (Knoben and Oerlemans, 2006). This issue is particularly relevant for our analysis as, in R&D, this has become increasingly important because of global accessibility. The case of this study is pertinent to R&D management but deserves further, more in-depth analysis. Preliminary results underline the relevance of geographical proximity, but it is the client or project base that is geographically fixed, not the potential technology suppliers. Further analysis should investigate this aspect.

Finally, this analysis is mainly static as it focuses on a specific instant in time at the end of the period of analysis. In this context, a longitudinal exploration of the innovation networks would be useful to verify whether results change at different stages in the course of development.

References

AHUJA G., POLIDORO J.R., MITCHELL W. (2009), "Structural homophily or social asymmetry? The formation of alliances by poorly embedded firms", *Strategic Management Journal,* vol. 30, pp. 941-958.

BAGLIERI D., BELUSSI, F., ORSI L. (2016), "Partnering strategies in biotech firms", in Belussi F., Orsi L. (2016), *Innovation, Alliances, and Networks in High-Tech Environments*, Routledge, London, pp. 66-85.

BALLAND P.A. (2012), "Proximity and the evolution of collaboration networks: Evidence from research and development projects within the Global Navigation Satellite System (GNSS) industry", *Research Policy*, vol. 46, n. 6, pp. 741-756.

BATHELT H., MALMBERG A., MASKELL P. (2004), "Clusters and knowledge: local buzz, global pipelines and the process of knowledge creation", *Progress in Human Geography*, vol. 28, n. 1, pp. 31-56.

BELL G.G. (2005), "Clusters, networks, and firm innovativeness", *Strategic Management Journa*l, vol. 26, pp. 287.

BEN LETAIFA S., RABEAU Y. (2013), "Too close to collaborate? How geographic, proximity could impede entrepreneurship and innovation", J*ournal of Business Research*, vol. 66, n. 10, pp. 2071-78.

BERGENHOLTZ C., WALDSTRØM C. (2011), "Inter-Organizational Network Studies - A Literature Review", *Industry and Innovation*, vol. 18, n. 6, pp. 539-562.

BONACCORSI A., PICCALUGA A. (1994), "A theoretical framework for University-Industry relations", *R&D Management,* vol. 24, n. 3, pp. 229-247.

BOSCHMA R. (2005), "Proximity and innovation: A critical assessment", *Regional Studies*, vol. 39, n. 1, pp. 61-74.

BROEKEL T., HARTOG M. (2013), "Explaining the structure of inter-organizational networks using exponential random graph models", *Industry and Innovation,* vol. 20, n. 3, pp. 277-295.

CAMPANELLA F., DELLA PERUTA M.R., BRESCIANI S., DEZI L. (2016), "Quadruple Helix and firms' performance: an empirical verification in Europe", *The Journal of Technology Transfer, first-on-line,* pp. 1-18, doi:10.1007/s10961-016-9500-9.

CANTÙ C. (2010), "Exploring the role of spatial relationships to transform knowledge in a business idea-Beyond a geographic proximity", *Industrial Marketing Managemen*t, vol. 39, n. 6, pp. 887-897.

CAPALDO A. (2015), Strategia, reti di imprese e capacità relazionali, Cedam, Padova.

CAPALDO A., PETRUZZELLI A.M. (2014), "Partner Geographic and Organizational Proximity and the Innovative Performance of Knowledge-Creating Alliances", *European Management Review,* vol. 11, n. 1, pp. 63-84.

CAPONE F. (2016), *Open innovation, dinamiche relazionali e strategia*, Giappichelli, Torino.

CASANUEVA C., CASTRO I., GALÁN J.L. (2013), "Informational networks and innovation in mature industrial clusters", *Journal of Business Research*, vol. 66, n. 5, pp. 603-613.

CASPRINI E., PUCCI T., ZANNI L. (2014), "Business model shifts : a case study on firms that apply high technology to cultural goods", *Technology Analysis and Strategic Management*, vol. 26, n. 2, pp. 171-187.

COHEN W.M., LEVINTHAL D.A. (1990), "Absorptive capacity: a new perspective on learning and innovation", *Administrative Science Quarterly*, vol. 35, pp. 128-153.

CONTRACTOR N.S., WASSERMAN S., FAUST K. (2006), "Testing Multitheoretical, Multilevel Hypotheses about Organizational Networks", *The Academy of Management Review*, vol. 31, n. 3, pp. 681-703.

DAGNINO G.B., LEVANTI G., MINA' A., PICONE P.A. (2015), "Interorganizational network and innovation: a bibliometric study and proposed research agenda", *Journal of Business and Industrial Marketing*, vol. 30, n. 3/4, pp. 354 - 377.

DE STEFANO D., ZACCARIN S. (2013), "Modelling multiple interactions in science and technology networks", *Industry and Innovation*, vol. 20, n. 3, pp. 221-240.

DEZI L., SIMONI M., SCHIAVONE F. (2011), "Competitività dei cluster europei e localizzazione dell'attività brevettuale: un'indagine empirica", *Sinergie*, n. 83, pp. 99-115.

ETZKOWITZ H., LEYDESDORFF L. (2000), "The Dynamics of Innovation: From National Systems and "Mode 2" to a Triple Helix of University-Industry-Government Relations", *Research Policy,* vol. 29, n. 2, pp. 109-123.

FRENKEL A., ISRAEL E., MAITAL S. (2015), "The evolution of innovation networks and spin-off entrepreneurship: The case of RAD", *European Planning Studies*, vol. 23, n. 8, pp. 1646-1670.

GIULIANI E. (2013), "Network dynamics in regional clusters: Evidence from Chile", *Research Policy*, vol. 42, n. 8, pp. 1406-1419.

GRANOVETTER M. (1973), "The strength of weak ties", *American Journal of Sociology*, vol. 78 , n. 6, pp. 1360-1380.

HUNTER D.R., HANDCOCK M.S., BUTTS C.T. GOODREAU S.M., MORRIS M. (2008), "ERGM: A Package to Fit, Simulate and Diagnose Exponential-Family Models for Networks", *Journal of Statistical Software*, vol. 24, n. 3, pp. 1-29.

HOHBERGER J. (2014), "Searching for emerging knowledge: the influence of collaborative and geographically proximate search", *European Management Review*, vol. 11, n. 2, pp. 139-157.

IRPET (2012), *Il settore dell'alta tecnologia applicata ai beni culturali in Toscana*, IRPET, Firenze.

JOHANSON M., LUNDBERG H. (2007), "The impact of geographical proximity and technology on firms' R&D operations", *Finanza, Marketing e Produzione*, n. 1, pp. 123-138.

KASTELLE T., STEEN J. (2014), "Networks of innovation", in Dodgson M., Gann D.M., Phillips N. (Ed.), *The Oxford Handbook of Innovation Management* (pp. 102-120), Oxford University Press, Oxford, UK.

KNOBEN J., OERLEMANS L.A.G. (2006), "Proximity and inter-organizational collaboration: A literature review", *International Journal of Management Reviews*, vol. 8, n. 2, pp. 71-89.

LAZZERETTI L., CAPONE F. (2016), "R&D networks in High Technology applied to Cultural Goods. A Social Network Analysis", *Sinergie*, vol. 34, n. 99, pp. 75-99.

LAZZERETTI L., CAPONE F., CINTI T. (2011), "Open innovation in city of art: The case of laser in conservation of artworks in Florence", *City, Culture and Society*, vol. 2, n. 3, pp. 159-68.

LOVE J.H., ROPER S. (2009), "Organizing innovation: complementarities between cross-functional teams", *Technovation*, vol. 29, n. 3, pp. 192-203.

LUSHER D., KOSKINEN J., ROBINS G. (2013), *Exponential Random Graph Models for Social Networks: Theory, Methods, and applications*, Cambridge University Press, Cambridge.

MCPHERSON M., SMITH-LOVIN L., COOK J.M. (2001), "Birds of a Feather Homophily in Social Networks", *Annual Review of Sociology*, vol. 27, n. 1, pp. 415-44.

MOLINA-MORALES F.X., GARCÍA-VILLAVERDE P.M., PARRA-REQUENA G. (2014), "Geographical and cognitive proximity effects on innovation performance in SMEs: a way through knowledge acquisition", *International Entrepreneurship Management Journal*, vol. 10, n. 2, pp. 231-251.

MOLINA-MORALES F.X., BELSO-MARTINEZ J.A., MAS-VERDÙ F., MARTINEZ-CHÀFER L. (2015), "Formation and dissolution on inter-firm linkages in lengthy and stable networks in clusters", *Journal of Business Research*, vol. 68, n. 7, pp. 1557-1562.

MORRISON A., BALLAND P.A., BELSO-MARTÍNEZ A.J. (2014), "The Dynamics of Technical and Business Networks in Industrial Clusters: Embeddedness, status or proximity?", *Papers in Evolutionary Economic Geography*, n. 14.12, Utrecht University.

MUSCIO A. (2006), "Patterns of innovation in industrial districts: an empirical analysis", *Industry and Innovation*, vol. 13, n. 3., pp. 291-312.

NOOTEBOOM B. (2000), *Learning and Innovation in Organizations and Economies*, Oxford University press, Oxford.

PICCALUGA A., CESARONI F. (2003), (eds), *Distretti industriali e distretti tecnologici. Modelli possibili per il Mezzogiorno*, Franco Angeli, Milano.

PINA-STRANGER A., LAZEGA E. (2010), "Inter-organisational collective learning: the case of biotechnology in France", *European Journal of International Management*, vol. 4, n. 6, pp. 602-620.

POWELL W.W., GRODAL S. (2005), "Networks of Innovators", in Fagerberg J., Mowery D.C., Nelson R.R. (eds), *The Oxford Handbook of Innovation*, Oxford University Press, Oxford, pp. 56-85.

PRESUTTI M., BOARI C., MAJOCCHI A. (2011), "The Importance of Proximity for the Start-Ups' Knowledge Acquisition and Exploitation", *Journal of Small Business Management*, vol. 49, n 3, pp. 361-389.

RITTER T., GEMUNDEN H.G. (2003), "Inter-organizational relationships and networks: An overview", *Journal of Business Research*, vol. 56, n. 9, pp. 691-697.

RULLANI E. (2013), "Territori in transizione: nuove reti e nuove identità per le economie e le società locali", *Sinergie*, n. 91, pp. 141-163.

SALIMBENI R. (2012), "The Technology District for Cultural Heritage and Sustainable Cities in Tuscany", *Salone dell"Arte e del Restauro di Firenze*, 8th November 2012, Florence.

SCIARELLI M., TANI M. (2014), "La Social Network Analysis per lo studio dell'innovazione nelle reti di imprese", *Sinergie Quaderni*, n. 17, pp. 87-104.

SNIJDERS T.A.B., VAN DE BUNT G.G., STEGLICH C. (2010), "Introduction to actor-based models for network dynamics", *Social Networks*, vol. 32, n. 1, pp. 44-60.

TALLMAN S., JENKINS M., HENRY N., PINCH S. (2004), "Knowledge, clusters, and competitive advantage", *Academy of Management Review*, vol. 29, n. 2, pp. 258-271.

TORRE A. (2011), "The role of proximity during long-distance collaborative projects. Temporary geographical proximity helps", *International Journal of Foresight and Innovation Policy*, vol. 73, n. 1, pp. 213-230.

VAN DER VALK T., GIJSBERS G. (2010), "The Use of Social Network Analysis in Innovation Studies: Mapping Actors and Technologies", *Innovation: Management, Policy and Practice*, vol. 12, n. 1, pp. 5-17.

WASSERMAN S., FAUST K. (1994), *Social Network Analysis: Methods and Applications,* Cambridge University Press, New York.

WASSERMAN S., PATTISON P. (1996), "Logit models and logistic regressions for social networks. I: An introduction to Markov graphs and p*", *Psychometrika*, vol. 60, n. 3, pp. 401-425.

ZANNI L., PUCCI T. (2012), "Capacità interne, relazioni esterne e performance in un cluster emergente: un'analisi empirica nel settore Life Sciences", *Conference proceedings of the XXIV Sinergie Conference*, 18-19 Ottobre 2012, Università del Salento (Lecce).

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Appendix (file avvailable on line, www.sinergiejournal.it)

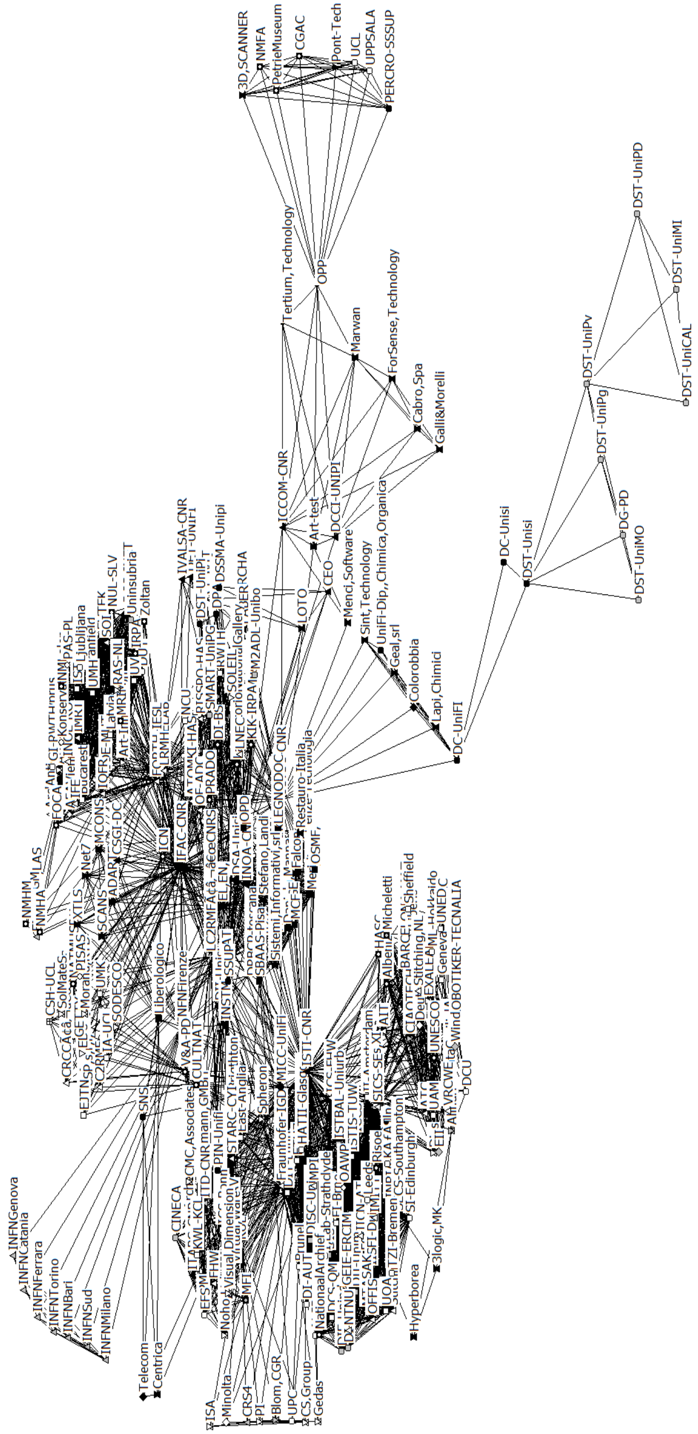

Fig. 1: The innovation networks in cultural goods, 267 Actors

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The importance of entrepreneurs' traits in explaining start-ups' innovativeness

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Abstract

***Purpose of the paper**: several studies prove the existence of a relationship between entrepreneurs' personality traits and firm performances. However, few of them focus on how these personality traits can be correlated with start-ups' innovativeness. We focus on start-ups because entrepreneurs play a crucial role in managing them: their personality strongly influences business decisions. The main personality traits we consider are narcissism, the Big Five (i.e. extraversion, agreeableness, conscientiousness, neuroticism, openness to experience), and locus of control. We aim to shed light on how these traits impact on start-ups' innovativeness and we draw propositions that hypothesize such impact.*

***Methodology**: being a theoretical paper, we carry out a thorough literature review and we propose some propositions.*

***Findings**: we suggest that entrepreneurs positively influence start-ups' innovativeness whenever they are narcissistic and have a high level of extraversion, agreeableness, conscientiousness, openness to experience, and internal locus of control. Otherwise, entrepreneurs with a high level of neuroticism and external locus of control negatively influence start-ups' innovativeness.*

***Limitations**: considering the theoretical nature of the paper, we have not tested our propositions yet; future research will involve testing them in an empirical business context.*

***Implications**: this paper makes significant contributions to two different literatures: entrepreneurship literature and innovation literature.*

***Originality of the paper**: this paper tries to fill a gap in the literature by analysing the relationship between start-ups' innovation and entrepreneurs' traits.*

Keywords: personality traits; narcissism; Big Five; locus of control; entrepreneurship; start-ups' innovation

1. Introduction

According to Rosenbusch *et al.* (2011), start-ups' success is linked with their innovation capabilities: they are called to exploit and realize innovation opportunities. Existing literature shows a relationship that is both negative and positive between innovation and start-ups' growth and survival. Samuelsson and Davidsson (2009) demonstrate the existence of a negative relationship in this sense because design innovations involve risks and complications due to limited resources availability and initial competitive disadvantages. Bruderl and Schussler (1990) assert that there is a positive

relationship because start-ups have less rigid routines that allow them to adapt to any changes in the operating environment and in clients needs more quickly. Groenewegen and de Langen (2012) identify three main factors that determine start-ups' growth and survival: innovations' uniqueness, organizations' characteristics and entrepreneurs' characteristics. In this paper we consider and investigate the first and the third factor, because we are convinced that studying the relationship between these variables is important for the growth and the survival of star-ups. We focus on start-ups because entrepreneurs are both founders and top management team leaders, therefore they play a central role in these realities.

Start-ups' innovativeness is related to the degree by which start-ups are innovative or not. Innovative start-ups are those that implement product/service, and process innovations (Damanpour, 1996, Utterback and Abernathy, 1975). Product/service innovations refer to the introduction of new products/services to fulfil user or external market needs. Process innovations are related to the way by which an organization conducts its business. Not innovative or imitative start-ups implement only incremental innovations: for these reasons they have low innovative performances (Samuelsson and Davidsson, 2009). However, the empirical identification of innovative start-ups is a delicate task; according to Fritsch (2011), we can use various methods: (i) the sharing of inputs or added value devoted to R&D, if data on individual firms are available; (ii) the degree of innovativeness of products or production processes, although the lack of a clear definition of a new product or new process makes it difficult to use; (iii) industry affiliation, that is a classification based on the knowledge and R&D intensity of industries as well as on the innovativeness of their product programs (high-technology, medium-high-technology, medium-low-technology and low-technology industries); (iv) venture capital investment, since venture capitalists generally finance only innovative start-ups.

In regards to entrepreneurs' characteristics, many scholars state that the personality traits of start-up entrepreneurs have strong influence in business decisions (Dyer and Handler, 1994, Rauch and Frese, 2007, Baron and Markman, 2003, Green and Binsardi, 2015). Several authors show that those who establish and manage new business ventures should have certain capabilities: he/she should be innovative and a risk taker, he/she should develop, recognize, evaluate and exploit opportunities and should be able to make rapid decisions under conditions of uncertainty and in a resource constrained environment (Ardichvili *et al.*, 2003, Chen *et al.*, 1998, Corbetta, 2011). Previous studies have primarily focused on the observable characteristics of entrepreneurs (such as age, sex, previous experience and personal income) and their effects on strategy and performance; however this approach does not explain why some entrepreneurs are more successful than others (Boone *et al.*, 1996). For these reasons, we use a personality approach that concerns the "characteristics of individual psychological traits that define an entrepreneur". Personality traits are characteristics of individual behaviour which clarify why people act differently in similar situations (Nga and Shamuganathan, 2010, Llewellyn and Wilson, 2003). Examples of traits are need for achievement, innovativeness, proactive

personality, generalized self-efficacy, stress tolerance, need for autonomy, locus of control, and risk taking.

Several studies in the entrepreneurship field have recently addressed the relationship between entrepreneurs' traits and firms' performances. Some take into account entrepreneurial orientation and risk-taking behaviour (Choe *et al.*, 2013, Hafeez *et al.*, 2012, Zhao *et al.*, 2010), others investigate entrepreneurs' narcissism (Chatterjee and Hambrick, 2007, Wales *et al.*, 2013), and the majority considers the Big Five traits (i.e. openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism), characteristics which represent the basic structure behind all personality traits (Zhao and Seibert, 2006, Ciavarella *et al.*, 2004). Baum and his colleagues demonstrate that motivation, strategic choice, growth goals, and vision communication improve new venture performance (Baum *et al.*, 2014, Baum and Locke, 2004). Other studies show that the personality traits of entrepreneurs are positively related to business creation and business success (Rauch and Frese, 2007).

Few studies analyse how entrepreneurs' traits affect firms' innovativeness (Rauch and Frese, 2007). Innovativeness is influenced by certain characteristics of the entrepreneur such as risk appetite, optimism, logical mind, higher education, previous work and experience in the field (Groenewegen and de Langen, 2012). Kickul and Gundry (2002) show that proactive personality (i.e. the ability to identify opportunities, take initiatives, and act) associated with strategic orientation allow the identification of opportunities for developing new products or markets. These characteristics also facilitate firm growth and success through changes and transformations within organizational structures. Other scholars investigate how the personality traits of social entrepreneurs influence innovative capabilities in their start-ups. They consider the Big Five characteristics and claim that only three factors influence innovation capabilities (openness to experience and agreeableness have positive influence, while neuroticism has a negative one) (Song *et al.*, 2008, Nga and Shamuganathan, 2010).

In general, previous studies showed that if entrepreneurs do not have certain levels of education and training linked with innovativeness, they cannot transform customers' needs into new products and services (Zhao *et al.*, 2010); if entrepreneurs are not creative and skilful in discovering innovative methods, they cannot protect their firms from competition (Ciavarella *et al.*, 2004); and if strategic decisions are framed within family constraints and individual goals, or if entrepreneurs are risk-averse and conservative, their innovative capabilities and those of their start-ups will be blocked (Dyer and Handler, 1994).

In our propositions, we claim that start-ups are innovative or not based on whether their entrepreneurs have or do not have certain personality traits.

In the following sections we analyse the method we use, we develop our research model and we delineate our propositions. The paper closes with a brief conclusion, in which we discuss some practical implications and address limitations and avenues for future research.

2. Methodology

This is a theoretical paper. We conducted a deep literature review through Google Scholar and we collected and analysed relevant studies in the field. On the basis of our study, we focused on the relation between personality traits and start-ups' performance and survival, while also considering the influence of innovativeness on this relation. In deciding on the inclusion or exclusion of references, we considered the following research question underlying this study: what is the role of entrepreneurs' personality traits in start-ups' innovativeness?

After that, we focused on the identification of appropriate keywords; these were selected on the basis of a careful examination of the literature included in the field. This process yielded a final list of 10 keywords, 5 of which were associated with the concept of "start-ups' innovativeness" and 5 related to the term "entrepreneurs' personality traits". Following the definition of our search strategy, we developed valid criteria for the inclusion and exclusion of papers. As Meier (2011) has suggested, we limited our sources to peer-reviewed journals, which have the highest Impact Factor in the field. The main fields that we considered were Entrepreneurship and Small Business Management, Psychology, Innovation.

Table 1 summarizes the facets and behaviours related to each trait taken into consideration in this paper.

Tab. 1. Facets and behaviours related to entrepreneurs' personality traits

Personality traits	Facets	Behaviours
Narcissism	- Positive Self-view - Attractive - Charismatic - Creative - Visionary	Self-admiration: vision of themselves as perfect, special, and unique. Self-centred: need of attention, inability to listen to others, no empathy for peers. Innovative: idea generator.
Extraversion	- Sociable - Energetic - Adventurous - Enthusiastic - Outgoing	Ambition: impetuous, seeks leadership roles, persuasive. Sociability: talkative, enjoys meeting people. Individuality: enjoys taking chances and stirring up excitement. Individuality: enjoys taking chances and stirring up excitement.
Agreeableness	- Confident - Altruist - Disciplined - Modest	Cooperative: helps others, trustful of others. Considerate: good-natured, cheerful, forgives others easily.
Conscientiousness	- Efficient - Organized - Not lazy - Not impulsive	Industriousness: strives to do his/her best, does more than planned, hardworking. Efficiency: plans in advance, is rarely late for appointments.
Neuroticism	- Anxious - Irritable - Depressed - Impulsive	Security: feels secure about self, not bothered by criticism.
Openness to experience	- Curious - Imaginative - Have wide interests - Unconventional	Open: cultured, try new and different things; enjoys art, music, and literature.
Internal Locus of control	- Active agent - Problem-solving capacity - Persuasive	Takes one's fate into his/her hands. Modifies and improves any situation.
External Locus of control	- Passive agent - Rules by fate - Stressed - Illness - Imposing	Uncertainty: hates ambiguity and new situations.

Source: Our elaboration based on Costa and McCrae (20087), John and Srivastava (1999), and Ciavarella *et al.* (2004)

The table was designed starting from the works of Costa and McCrae (2008), John and Srivastava (1999), and Ciavarella *et al.* (2004), and it allows a better understanding of each personality trait because it shows the main characteristics of each trait and links these characteristics to people's personalities and behaviour.

In particular, facets are specific and unique aspects of a broader personality trait (McCrae and Costa, 2003), while behaviours are the expression of the trait, something that allows us to see the traits through a person's actions (McCrae and Costa, 2003).

On the basis of this literature review we advance some propositions that will be discussed throughout the paper. Firstly, we analyse the relationship between narcissism and start-ups' innovativeness; secondly, the relationship between the Big Five and start-ups' innovativeness, and finally the relationship between the locus of control and start-ups' innovativeness.

3. The relationship between narcissism and start-ups' innovativeness

The term "narcissism" derives from the story of Narcissus, taken from Greek mythology, which is about a man who refuses others because he is madly in love with his reflection in a water pond. Narcissism is generally considered a personality disorder or a pathology but subsequent studies have showed that it can be diagnosed as personality disorder only in extreme cases (Lubit, 2002, Humphreys *et al.*, 2011). Normal levels of narcissism are reflected in strategies used to promote a positive self-image and facilitate relations among psychologically well-adjusted individuals (Campbell *et al.*, 2004, Wales *et al.*, 2013). Usually, narcissistic individuals have "positive and inflated self-view, such as personal form of admiration or perverse self-love, and a self-regulatory strategy to maintain and enhance this positive self-view" (Ackerman *et al.*, 2010). Accordingly, they fantasize about fame and power, they think they are special and unique and they see themselves as more intelligent and attractive (Campbell *et al.*, 2004, Mathieu and St-Jean, 2013, Raskin and Novacek, 1991, Humphreys *et al.*, 2011, Rosenthal and Pittinsky, 2006). Nevertheless, they need attention and admiration, they fail to listen attentively others, and they have little empathy for their peers (Gabriel *et al.*, 1994). Nevertheless, narcissistic individuals tend to emerge as leaders in organizations, for they have compelling, even gripping, visions for firms (e.g. they do not try to understand the future, rather they attempt to create it), and they have the ability to attract followers through their public speaking, which makes them charismatic (Goncalo *et al.*, 2010; Maccoby, 2000).

According to Gardner and Avolio (1998) "charismatic leaders are exceptionally expressive people, who employ rhetoric to persuade, influence, and mobilize others", and this allows them to improve their levels of creativity and innovation. Narcissists bring benefits to organizations thanks to their visionary and innovative qualities (Goncalo *et al.*, 2010, Maccoby, 2000, Maccoby, 2003). Many papers analyse the effects of narcissistic personality on business performance: Chatterjee and Hambrick (2007) and Wales *et al.* (2013) claim that narcissistic CEOs tend to generate extreme performance,

both positive and negative. Furthermore, Chatterjee and Hambrick (2007) add that these CEOs also have wide fluctuations in performances from one period to another. According to Pinto and Patanakul (2015), entrepreneurs' narcissistic behaviour facilitates new product development, new operational initiatives and new project ventures. However, the relationship between narcissistic entrepreneurs and start-ups' innovation has not been addressed; therefore, by analysing all the features possessed by narcissistic subjects, we suggest that:

Proposition 1 (P_1): Narcissistic entrepreneurs positively influence start-ups' innovativeness.

4. The relationship between the Big Five factors and start-ups' innovativeness

The most popular approach for studying and organising personality traits is the Big Five model; this is composed by neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness (McCrae and Costa, 1985, McCrae and Costa, 1987). According to many authors, this model allows a confusing variety of personality variables to be organized into a meaningful and comprehensive set of personality traits. Moreover, it contains broad personality constructs that allow a better understanding of entrepreneurial behaviour (Rauch and Frese, 2007, McCrae and John, 1992, John and Srivastava, 1999). Brandstätter (2011) claims that the entrepreneurial role is strongly influenced by the personality of entrepreneurs: he shows that emotional stability has an impact on new venture creation; openness to experience allows entrepreneurs to find new opportunities and ways to structure and develop firms; achievement motivation, namely a component of conscientiousness, which allows entrepreneurs to work hard and be persistent in striving towards his or her goal; extraversion is fundamental in establishing a social network; and risk propensity, namely a combination of emotional stability, openness, and extraversion, allows taking the risk of failure. The remaining part of the section is organized as follows: we briefly illustrate each factor from a psychological point of view, then we place it in an entrepreneurial context and formulate our propositions.

Extraversion represents the tendency to be outgoing, assertive, active, enthusiastic, and excitement seeking. People with a high level of extraversion are dominant in social situations, optimists, and inspire positive feelings (Zhao *et al.*, 2010, Rothmann and Coetzer, 2003, Brandstätter, 2011). Costa *et al.* (1984) state that extravert people are attracted by enterprising occupations (i.e. business), and Zhao *et al.* (2010) claim that extraversion is positively related to entrepreneurial intention. Other authors show that entrepreneurs with high levels of extraversion are considered charismatic leaders by employees (Judge and Bono, 2000, Vecchio, 2003). Entrepreneurs' extraversion is also positively related to firm performances; high levels of extraversion facilitate entrepreneurs' social interaction with stakeholders and this enables the improvement of

performances (Zhao *et al.*, 2010, Rothmann and Coetzer, 2003, Baron and Markman, 2003). Accordingly, we expect that extraversion positively relates to start-ups' innovation; therefore we suggest that:

Proposition 2 (P_2): Entrepreneurs with a high level of extraversion positively influence start-ups' innovativeness.

Agreeableness is the tendency to be kind, altruistic, trusting, and modest (Zhao *et al.*, 2010). An agreeable person shows sympathy, cares about the needs of others and tries to restore peace in case of disputes (Rothmann and Coetzer, 2003). Many scholars argue that agreeableness is negatively related to firms' performances, because entrepreneurs should be able to benefit from opportunities, think of their own interests, and manipulate situations in order to allow firms' survival and growth (Zhao and Seibert, 2006). However, other scholars argue that a minimum level of agreeableness is necessary to receive the required support to start a new venture, and moreover Ciavarella *et al.* (2004) claim that entrepreneurs that have trusting, flexible, and courteous relations with customers should expect to have high profits. According to Ross and Offermann (1997) there is a positive relationships between some aspects of agreeableness and charismatic leadership; charismatic leaders tend to be generous and attentive towards others and tend to cooperate to secure capital and future support from venture capitalists, thus increasing the chance for the long-term survival of the venture (Shane and Cable, 2002, Cable and Shane, 1997, Hogan and Shelton, 1998). Since we are considering start-ups' entrepreneurs, who are motivated and extremely creative, and given that these characteristics are at the basis of innovation, we suggest that:

Proposition 3 (P_3): Entrepreneurs with a high level of agreeableness positively influence start-ups' innovativeness.

Conscientiousness includes thinking before acting, being respectful of rules and laws, as well as planning and organizing tasks. The main features of entrepreneurs are hard work, goals orientation, and perseverance (Zhao *et al.*, 2010); these allow the entrepreneur to achieve higher productivity and to benefit from greater efficiency and effectiveness within the firm (Ciavarella *et al.*, 2004). Many authors state that consciousness derives from entrepreneurs' need for achievement that, for this reason, creates a new venture (Baum and Locke, 2004, Zhao and Seibert, 2006). Accordingly, "higher levels of conscientiousness play a pivotal role in the entrepreneur's ability to lead his/her new venture to long-term survival" (Ciavarella *et al.*, 2004). In the light of previous studies, we expect conscientious entrepreneurs to invest more in innovation and to facilitate the development and growth of their own start-ups. Therefore, we suggest that:

Proposition 4 (P_4): Entrepreneurs with a high level of conscientiousness positively influence start-ups' innovativeness.

Neuroticism is the tendency to be anxious, fearful, depressed, and moody. People with high levels of neuroticism lack self-confidence and self-esteem and hardly want to take on the personal responsibilities and strains

associated with the entrepreneurial role (Zhao *et al.*, 2010, Judge and Bono, 2000). If they decide to start a new venture without changing their negative behaviour (i.e. without any optimism), they could compromise the performance of their ventures and have problems maintaining the relationships that facilitate the entrepreneur's long-term success (Hurtz and Donovan, 2000, Ciavarella *et al.*, 2004). Thus, we propose that:

Proposition 5 (P_5): Entrepreneurs with a high level of neuroticism negatively influence start-ups' innovativeness.

Openness to experience represents the tendency to be creative, imaginative, intelligent, and perceptive (Chang *et al.*, 2014). People with a high level of openness tend to be unconventional and have new ethical, social and political ideas (Rothmann and Coetzer, 2003). All the adjectives listed so far should basically be owned by entrepreneurs who want to start a new venture because they should explore new ideas, use their creativity to solve problems, and adopt an innovative approach to products, business methods, or strategies (Ciavarella *et al.*, 2004, Zhao and Seibert, 2006, Zhao *et al.*, 2010). In particular, in dynamic markets, entrepreneurs should be ready to change products/services and technologies in order to compete; this requires intelligence and creativeness to acquire new knowledge on technological advances and solve day-to-day problems (Ciavarella *et al.*, 2004, Zhao *et al.*, 2010). Therefore the link between openness to experience and creativity, and the previously analysed link between creativity and innovation leads us to assume that:

Proposition 6 (P_6): Entrepreneurs with a high level of openness to experience positively influence start-ups' innovativeness.

5. The relationship between locus of control and start-ups' innovativeness

The last variable we take into consideration is locus of control. According to Rotter (1966), locus of control indicates the way in which an individual believes that life events are produced by his or her behaviour (internal locus of control), or by external causes beyond his or her control (external locus of control). In general, people with an internal locus of control see themselves as active agents so they know that their destiny is not predetermined and that they can change it; they are also able to influence the environment that surrounds them thanks to their skills and efforts. In contrast, people with an external locus of control see themselves as passive agents and believe that events in their lives are uncontrollable because they stem from reasons of force majeure (i.e. luck, fate, powerful people or institutions) (Boone *et al.*, 1996, Rotter, 1966).

In general, entrepreneurs with internal locus of control have different characteristics than those with external locus of control. Many scholars claim that the locus of control trait alleviates the relationship between stress and illness (Boone *et al.*, 1996, Kobasa *et al.*, 1982, Lefcourt, 2014).

If entrepreneurs are facing very stressful periods and have an external locus of control, they react by feeling psychologically and physically ill (e.g. depression, herpes). In contrast, entrepreneurs with an internal locus of control react in a problem-solving way because they know that they can solve them (Boone *et al.*, 1996). There is also a relation between locus of control and the prerequisite to take action, which may result in the ability to become or not an entrepreneur in our case. Krueger (1993) suggests that the predisposition to act is an essential element when deciding to build up a start-up; individuals who perceive an entrepreneurial opportunity as desirable and achievable will start a new venture only if they are psychologically prepared. Accordingly, "internal locus of control orientation increases the likelihood that a potential entrepreneur will implement their entrepreneurial intentions" (Julian and Terjesen, 2006). Many researchers state that locus of control influences entrepreneurs' behaviour; entrepreneurs with an external locus of control will most likely not implement activities involving innovation and risk taking because they are characterized by uncertainty and ambiguity (Miller, 2011, Miller *et al.*, 1982, Begley and Boyd, 1988). Finally, entrepreneurs' locus of control has consequences in their relationship with employees: many scholars show that entrepreneurs with an internal locus of control employ persuasion tactics to influence the behaviour of their employees while entrepreneurs with external locus of control prefer to give orders (Goodstadt and Hjelle, 1973, Mitchell *et al.*, 1975).

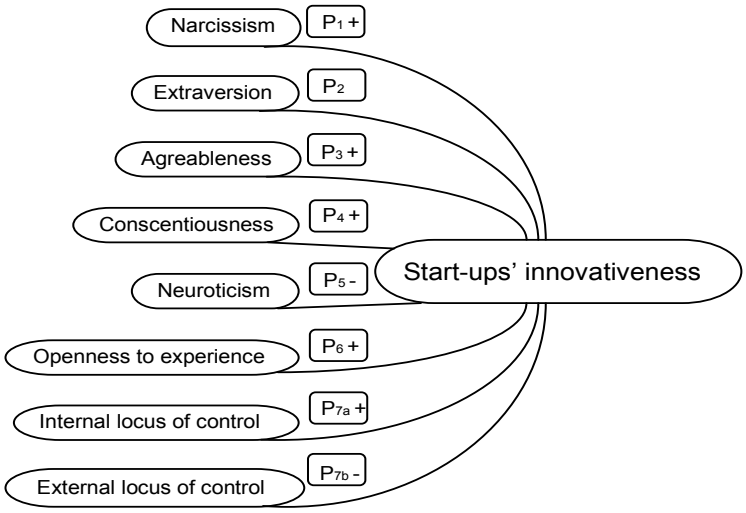
Previous research has analysed how locus of control impacts on business performances and new ventures creation; many studies show that ventures led by entrepreneurs with internal locus of control perform better than firms headed by entrepreneurs with an external one (Boone *et al.*, 1996, Howell and Avolio, 1993). Other studies show that start-ups created by entrepreneurs with internal locus of control are more successful and possess more survival capacity than start-ups created by entrepreneurs with an external locus of control (Van de Ven *et al.*, 1984, Gatewood *et al.*, 1995). However, few studies analyse the link between locus of control and innovation; Miller and colleagues analyse the relationship between CEOs' locus of control and the implementation of innovation strategies (Miller and Toulouse, 1986, Miller *et al.*, 1982). They state that CEOs with internal locus of control implement innovation strategies, introduce new products, and engage in R&D. Thus, in the light of previous studies, we can suggest that:

Proposition 7a (P_{7a}): Entrepreneurs with a high level of internal locus of control positively influence start-ups' innovativeness.

Proposition 7b (P_{7b}): Entrepreneurs with a high level of external locus of control negatively influence start-ups' innovativeness.

All previously identified relationships led us to design our analytical model (Figure 1).

Fig. 1: Entrepreneurs' personality traits and start-ups' innovativeness



Source: Our elaboration

6. Conclusion

This study sheds light on how entrepreneurs' personality traits influence entrepreneurs' behaviour inside firms, and consequently start-ups' innovativeness.

Table 1 provides a comprehensive understanding of each personality trait, its characteristics and how it can improve innovativeness or not. Therefore each trait could have a positive or negative influence on start-ups' innovativeness.

A primary theoretical contribution of this work consists in a new vision of narcissist entrepreneurs' capabilities. We argue that entrepreneurs' narcissism positively influences start-ups' innovativeness because their innate creativity and their capability to be risk-takers and have grandiose vision will improve innovation inside start-ups. Another important contribution of this paper is the investigation of more common personality traits compared to innovative performance. In general, traits like the Big Five or locus of control are investigated only in relation to firm performance; this allows us to advance prior research by demonstrating that these traits are also related to start-ups' innovativeness.

The proposed analytical model provides significant contributions to two different literatures. First, it contributes to entrepreneurship literature because, by exploring the main personality traits shared by entrepreneurs, it allows us to underline that personality traits influence firms' growth and survival. Secondly, it contributes to innovation literature because, by exploring entrepreneurs' traits, we can know whether or not firms will have high innovation performances.

More work is needed to test these propositions. As a result, future research will involve the testing and the replication of our study to see

if the influence of time and life events can interfere and/or smooth the personal traits of entrepreneurs. We could also include some moderators in our model, such as entrepreneurs' motivation and innovativeness, to check if they interfere with the final result.

References

ACKERMAN R.A., WITT E.A., DONNELLAN M.B., TRZESNIEWSKI K.H., ROBINS, R.W., KASHY D.A. (2010), "What does the Narcissistic Personality Inventory really measure?", *Assessment*: 1073191110382845.

ARDICHVILI A., CARDOZO R., RAY S. (2003), "A theory of entrepreneurial opportunity identification and development", *Journal of Business Venturing*, vol. 18, n. 1, pp. 105-123.

BARON R.A., MARKMAN G.D. (2003), "Beyond social capital: The role of entrepreneurs' social competence in their financial success", *Journal of Business Venturing*, vol. 18, n. 1, pp. 41-60.

BAUM J.R., FRESE M., BARON R.A. (2014), *The psychology of entrepreneurship*, Psychology Press, New York.

BAUM J.R., LOCKE E.A. (2004), "The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth", *Journal of Applied Psychology*, vol. 89, n. 4, pp. 587.

BEGLEY T.M., BOYD D.P. (1988), "Psychological characteristics associated with performance in entrepreneurial firms and smaller businesses", *Journal of Business Venturing*, vol. 2, n. 1, pp. 79-93.

BOONE C., BRABANDER B., WITTELOOSTUIJN A. (1996), "Ceo Locus of Control and Small Firm Performance: an Integrative Framework and Empirical Test", *Journal of Management Studies*, vol. 33, n. 5, pp. 667-700.

BRANDSTÄTTER H. (2011), "Personality aspects of entrepreneurship: A look at five meta-analyses", *Personality and Individual Differences*, vol. 51, n. 3, pp. 222-230.

BRUDERL J., SCHUSSLER R. (1990), "Organizational mortality: The liabilities of newness and adolescence", *Administrative Science Quarterly*, vol. 35, n. 3, pp. 530-547.

CABLE D.M., SHANE S. (1997), "A prisoner's dilemma approach to entrepreneur-venture capitalist relationships", *Academy of Management Review*, vol. 22, n. 1, pp. 142-176.

CAMPBELL W.K., GOODIE A.S., FOSTER J.D. (2004), "Narcissism, confidence, and risk attitude", *Journal of Behavioral Decision Making*, vol. 17, n. 4, pp. 297-311.

CHANG J.J., HUNG K.P., LIN M.J.J. (2014), "Knowledge creation and new product performance: the role of creativity", *R&D Management*, vol. 44, n. 2, pp. 107-123.

CHATTERJEE A., HAMBRICK D.C. (2007), "It's All about Me: Narcissistic Chief Executive Officers and Their Effects on Company Strategy and Performance", *Admnistrative Science Quarterly*, vol. 52, n. 3, pp. 351-386.

CHEN C.C., GREENE P.G., CRICK A. (1998), "Does entrepreneurial self-efficacy distinguish entrepreneurs from managers?", *Journal of Business Venturing*, vol. 13, n. 4, pp. 295-316.

CHOE K.L., LOO S.C., LAU T.C. (2013), "Exploratory Study on the Relationship between Entrepreneurial Attitude and Firm's Performance", *Asian Social Science,* vol. 9, n. 4, pp. 144-149.

CIAVARELLA M.A., BUCHHOLTZ A.K., RIORDAN C.M., GATEWOOD R.D., STOKES G.S. (2004), "The Big Five and venture survival: Is there a linkage?", *Journal of Business Venturing*, vol. 19, n. 4, pp. 465-483.

CORBETTA G. (2011), "Imprenditorialità e aziende dell'Italian style", *Sinergie*, n. 71, pp. 53-72.

COSTA P.T., MCCRAE R.R. (2008), "The revised neo personality inventory (neo-pi-r)", in AA.VV., *The SAGE handbook of personality theory and assessment: Personality measurement and testing,* Vol. 2, SAGE Publications, London.

COSTA P.T., MCCRAE R.R., HOLLAND J.L. (1984), "Personality and vocational interests in an adult sample", *Journal of Applied psychology,* vol. 69, n. 3, pp. 390.

DAMANPOUR F. (1996), "Organizational Complexity and Innovation: Developing and Testing Multiple Contingency Models", *Management Science*, vol. 42, n. 5, pp. 693-716.

DYER W.G., HANDLER W. (1994), "Entrepreneurship and family business: Exploring the connections", *Entrepreneurship Theory and Practice*, n. 19, pp. 71-83.

FRITSCH M. (2011), "Start-ups in innovative industries: causes and effects", in AA.VV., *Handbook of research on innovation and entrepreneurship,* Edward Elgar Publishing, Cheltenham.

GABRIEL M.T., CRITELLI J.W., EE J.S. (1994), "Narcissistic Illusions in Self-Evaluations of Intelligence and Attractiveness", *Journal of Personality*, vol. 62, n. 1, pp. 143-155.

GARDNER W.L., AVOLIO B.J. (1998), "The charismatic relationship: A dramaturgical perspective", *Academy of Management Review*, vol. 23, n. 1, pp. 32-58.

GATEWOOD E.J., SHAVER K.G., GARTNER W.B. (1995), "A longitudinal study of cognitive factors influencing start-up behaviors and success at venture creation", *Journal of Business Venturing*, vol. 10, n. 5, pp. 371-391.

GONCALO J.A., FLYNN F.J., KIM S.H. (2010), "From a mirage to an oasis: Narcissism, perceived creativity and creative performance", *Academy of Management 2010 Annual Meeting - Dare to Care: Passion and Compassion in Management Practice and Research*, AOM 2010.

GOODSTADT B.E., HJELLE L.A. (1973), "Power to the powerless: locus of control and the use of power", *Journal of Personality and Social Psychology,* vol. 27, n. 2, pp. 190.

GREEN J., BINSARDI B. (2015), "Entrepreneurial intentions: a grounded theory of green-fielding", *Sinergie*, vol. 33, n. 97, pp. 17-36.

GROENEWEGEN G., DE LANGEN F. (2012), "Critical Success Factors of the Survival of Start-Ups with a Radical Innovation", *Journal of Applied Economics and Business Research,* vol. 2, n. 3, pp. 155-171.

HAFEEZ M.H., SHARIFF M.N.M., BIN MAD LAZIM H. (2012), "Relationship between Entrepreneurial Orientation, Firm Resources, SME Branding and Firm's Performance: Is Innovation the Missing Link?", *American Journal of Industrial and Business Management*, vol. 2, n. 04, pp. 153.

HOGAN R., SHELTON D. (1998), "A socioanalytic perspective on job performance", *Human Performance*, vol. 11, n. 2-3, pp. 129-144.

HOWELL J.M., AVOLIO B.J. (1993), "Transformational leadership, transactional leadership, locus of control, and support for innovation: Key predictors of consolidated-business-unit performance", *Journal of Applied Psychology*, vol. 78, n. 6, pp. 891.

HUMPHREYS J.H., HADEN S.P., NOVICEVIC M.M., CLAYTON R.W., GIBSON J.W. (2011), "Lillian McMurry of trumpet records: Integrity and authenticity in the charismatic, constructive narcissist leader", *Journal of Leadership and Organizational Studies*, vol. 18, n. 1, pp. 40-55.

HURTZ G.M., DONOVAN J.J. (2000), "Personality and job performance: the Big Five revisited", *Journal of Applied Psychology,* vol. 85, n. 6, pp. 869.

JOHN O.P., SRIVASTAVA S. (1999), "The Big Five trait taxonomy: History, measurement, and theoretical perspectives", *Handbook of Personality: Theory and Research*, n. 2, pp. 102-138.

JUDGE T.A., BONO J.E. (2000), "Five-factor model of personality and transformational leadership", *Journal of Applied Psychology*, vol. 85, n. 5, pp. 751-765.

JULIAN C.C., TERJESEN S. (2006), "Entrepreneurial aspirations-a five country study", *Proceedings of the 11th Annual Conference of Asia Pacific Decision Sciences Institute*, june 2006.

KICKUL J., GUNDRY L. (2002), "Prospecting for strategic advantage: the proactive entrepreneurial personality and small firm innovation", *Journal of Small Business Management*, vol. 40, n. 2, pp. 85-97.

KOBASA S.C., MADDI S.R., KAHN S. (1982), "Hardiness and health: a prospective study", *Journal of Personality and Social Psychology*, vol. 42, n. 1, pp. 168.

KRUEGER N.F. (1993), "The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability", *Entrepreneurship Theory and Practice*, vol. 18, n. 1, pp. 5-21.

LEFCOURT H.M. (2014), *Locus of control: Current trends in theory & research*, Psychology Press, New York.

LLEWELLYN D.J., WILSON K.M. (2003), "The controversial role of personality traits in entrepreneurial psychology", *Education+ Training*, vol. 45, n. 6, pp. 341-345.

LUBIT R. (2002), "The long-term organizational impact of destructively narcissistic managers", *The Academy of Management Executive*, vol. 16, n. 1, pp. 127-138.

MACCOBY M. (2000), "Narcissistic leaders: The incredible pros, the inevitable cons.", *Harvard Business Review*, vol. 78, n. 1, pp. 68-78.

MACCOBY M. (2003), *The productive narcissist: The promise and peril of visionary leadership*, Broadway, New York.

MATHIEU C., ST-JEAN É. (2013), "Entrepreneurial personality: The role of narcissism", *Personality and Individual Differences*, vol. 55, n. 5, pp. 527-531.

MCCRAE R.R., COSTA P.T. (1985), "Comparison of EPI and psychoticism scales with measures of the five-factor model of personality", *Personality and Individual Differences*, vol. 6, n. 5, pp. 587-597.

MCCRAE R.R., COSTA P.T. (1987), "Validation of the five-factor model of personality across instruments and observers", *Journal of Personality and Social Psychology*, vol. 52, n. 1, pp. 81.

MCCRAE R.R., COSTA P.T. (2003), *Personality in adulthood: A five-factor theory perspective*, Guilford Press, New York.

MCCRAE R.R., JOHN O.P. (1992), "An introduction to the five factor model and its applications", *Journal of Personality*, vol. 60, n. 2, pp. 175-215.

MEIER M. (2011), "Knowledge management in strategic alliances: a review of empirical evidence", *International Journal of Management Reviews*, vol. 13, n. 1, pp. 1-23.

MILLER D. (2011), "Miller (1983) revisited: A reflection on EO research and some suggestions for the future", *Entrepreneurship Theory and Practice,* vol. 35, n. 5, pp. 873-894.

MILLER D., DE VRIES M.F.K., TOULOUSE J.M. (1982), "Top executive locus of control and its relationship to strategy-making, structure, and environment", *Academy of Management Journal*, vol. 25, n. 2, pp. 237-253.

MILLER D., TOULOUSE J.M. (1986), "Chief executive personality and corporate strategy and structure in small firms", *Management Science*, vol. 32, n. 11, pp. 1389-1409.

MITCHELL T.R., SMYSER C.M., WEED S.E. (1975), "Locus of control: Supervision and work satisfaction", *Academy of Management Journal*, vol. 18, n. 3, pp. 623-631.

NGA J.K.H., SHAMUGANATHAN G. (2010), "The influence of personality traits and demographic factors on social entrepreneurship start up intentions", *Journal of Business Ethics*, vol. 95, n. 2, pp. 259-282.

PINTO J.K., PATANAKUL P. (2015), "When narcissism drives project champions: A review and research agenda", *International Journal of Project Management*, vol. 33, n. 5, pp. 1180-1190.

RASKIN R., NOVACEK J. (1991), "Narcissism and the use of fantasy", *Journal of Clinical Psychology*, 47, n. 4, pp. 490-499.

RAUCH A., FRESE M. (2007), "Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success", *European Journal of Work and Organizational Psychology*, vol. 16, n. 4, pp. 353-385.

ROSENBUSCH N., BRINCKMANN J., BAUSCH A. (2011), "Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs", *Journal of Business Venturing*, vol. 26, n. 4, pp. 441-457.

ROSENTHAL S.A., PITTINSKY T.L. (2006), "Narcissistic leadership", *The Leadership Quarterly*, vol. 17, n. 6, pp. 617-633.

ROSS S.M., OFFERMANN L.R. (1997), "Transformational leaders: Measurement of personality attributes and work group performance", *Personality and Social Psychology Bulletin*, vol. 23, n. 10, pp. 1078-1086.

ROTHMANN S., COETZER E. (2003), "The big five personality dimensions and job performance", *SA Journal of Industrial Psychology*, vol. 29, n. 1, pp. p. 68-74.

ROTTER J.B. (1966), "Generalized expectancies for internal versus external control of reinforcement", *Psychological monographs: General and applied*, vol. 80, n. 1, pp. 1.

SAMUELSSON M., DAVIDSSON P. (2009), "Does venture opportunity variation matter? Investigating systematic process differences between innovative and imitative new ventures", *Small Business Economics*, vol. 33, n. 2, pp. 229-255.

SHANE S., CABLE D. (2002), "Network ties, reputation, and the financing of new ventures", *Management Science*, vol. 48, n. 3, pp. 364-381.

SONG M., PODOYNITSYNA K., VAN DER BIJ H., HALMAN J.I. (2008), "Success Factors in New Ventures: A Meta analysis", *Journal of Product Innovation Management*, vol. 25, n. 1, pp. 7-27.

UTTERBACK J.M., ABERNATHY W.J. (1975), "A dynamic model of process and product innovation", *Omega*, vol. 3, n. 6, pp. 639-656.

VAN DE VEN A.H., HUDSON R., SCHROEDER D.M. (1984), "Designing new business startups: Entrepreneurial, organizational, and ecological considerations", *Journal of Management*, vol. 10, n. 1, pp. 87-108.

VECCHIO R.P. (2003), "Entrepreneurship and leadership: common trends and common threads", *Human Resource Management Review*, vol. 13, n. 2, pp. 303-327.

WALES W.J., PATEL P.C., LUMPKIN G.T. (2013), "In Pursuit of Greatness: CEO Narcissism, Entrepreneurial Orientation, and Firm Performance Variance", *Journal of Management Studies*, vol. 50, n. 6, pp. 1041-1069.

ZHAO H., SEIBERT S.E. (2006), "The big five personality dimensions and entrepreneurial status: a meta-analytical review", *Journal of Applied Psychology*, vol. 91, n. 2, pp. 259.

ZHAO H., SEIBERT S.E., LUMPKIN G.T. (2010), "The relationship of personality to entrepreneurial intentions and performance: A meta-analytic review", *Journal of Management*, vol. 36, n. 2, pp. 381-404.

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Creating university-industry interactions: how can university management connect various types of interactions?

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Abstract

Purpose of the paper: *University-Industry interactions (U-I interactions) - such as joint collaboration projects - are currently perceived as one important answer to innovation. However, the detailed dynamics of these interactions remain unknown, especially when it comes to universities' efforts to create such interactions (Perkmann and Walsh, 2007). By analysing two interaction-stimulating tools deployed by a Swedish university, this paper addresses two research questions: 1) which different types of U-I interactions are created by these tools? and 2) how does the university management connect different types of U-I interactions?*

Methodology: *Embedded case study methodology comprised of participant observation and over 60 in depth semi-structured interviews.*

Results: *For the first question, we have found that four types of U-I interactions were created, namely "participation", "cooperation", "collaboration" and "relationships". For the second question, we have found that creating successful U-I interactions requires that the university management intervenes on all the various interaction types.*

Research limit: *The research questions posed here are based on two specific U-I interaction tools in one specific context. To be able to draw a more generalizable conclusion, further research is needed from other societal contexts and universities.*

Practical implications: *University management's aim towards achieving deeper and long-term interactions may be hindered by the companies' and academic researchers' emphasis on simply exchanging knowledge or building contact networks, rather than gaining tangible outputs from U-I interactions.*

Originality of the paper: *Current research lacks detailed descriptions and analyses of U-I interactions, especially of universities' efforts to create such interactions from scratch, that is, before they become established relationships. This paper addresses this gap.*

Key words: university-industry interaction; case study; typology; cooperation; collaboration; relationship

1. Introduction

The university's role as knowledge producer in technological advances has been a heated discussion topic, in both the academic and political sphere, for several decades now. Much attention has been directed towards the commercialization of academic research results, involving the patenting and licensing of inventions as well as academic entrepreneurship (see e.g.

Phan and Siegel, 2006; Rothaermel *et al.*, 2007; O'Shea *et al.*, 2008). This literature and discourse focuses on the so called spin-out funnel (Clarysse *et al.*, 2005) reflecting a linear technology transfer from academia to industry. Even though this linear commercialization process has been extensively criticised for its deterministic and simplistic nature (see e.g. Grandin et al, 2004; Balconi et al, 2010), it still influences a functional perspective on an effective innovation-supporting system (Mowery and Sampat, 2005). Markman *et al.*'s (2008) explanation for this focus is that the linear commercialization process generates immediate and measurable results that enable verification of the universities' contribution to innovation.

Nonetheless, many scholars claim that there is a variety of additional mechanisms through which universities contribute to technological advances (Mowery and Sampat, 2005; Bercovitz and Feldman, 2006; Perkmann and Walsh, 2007; Nilsson *et al.*, 2010), and that the linear commercialization path actually constitutes only a small fraction of this contribution (Perkmann *et al.*, 2013). These additional mechanisms are various University-Industry (U-I) interactions which entail a more complex, often intangible, knowledge exchange between academia and industry rather than a linear technology transfer. These mechanisms are often disregarded by policy and in literature because their effects are difficult to measure and they relate only indirectly to innovation and economic growth (Nilsson *et al.*, 2010). Nonetheless, research on U-I interactions is growing, even if according to Perkmann *et al.* (2013) this field remains fragmented and tentative. In contrast to the central role of entrepreneurship theory in the literature on linear commercialization, the notion of U-I interactions is lacking a conceptual framework to build on (Ibid), despite early conceptualizations such as Bonaccorsi and Piccaluga's (1994), building on the economic and inter-organizational theory. Further, Perkmann and Walsh (2007) stress that current research lacks detailed descriptions and analyses of U-I interactions, especially of universities' efforts to create such interactions from scratch, that is, *before* they become established relationships.

Considering this gap in the literature on U-I interactions, we focus our contribution on the role of *university management*, represented by innovation-supporting units such as Technology Transfer Offices (TTO), in facilitating these interactions, which constitute mechanisms of science diffusion other than linear commercialization. This is a relevant question to address as the increasing pressure "to contribute to innovation" is put on the universities as organisations rather than on the individual researchers. Further, Sweden is one of the few countries, among which is also Italy, which applies both 'the third mission' and 'the teacher's exemption' (granting ownership of inventions to academicians) as two parallel regulations (Henreksson and Rosenberg, 2001). The presence of both of these regulations makes the Swedish universities a particularly interesting empirical context for studying additional mechanisms of diffusing science (Nilsson *et al.*, 2010), because the tension between these two regulations forces university management to find mechanisms alternative to the spinout funnel for making science useful to society.

In particular, this paper aims to investigate how university management (TTOs and other innovation-supporting officials) can facilitate alternative mechanisms for diffusing knowledge between academia and industry. Following two interaction-stimulating tools implemented by Uppsala University, Sweden, enabled us to closely observe how university management stimulates and controls the creation of interactions between academic researchers and companies. By analysing the details of how the two tools (called AIMday and SMURF) work and are applied, we can also add more facets to existing typologies of U-I interactions (e.g., Baraldi *et al.*, 2013). We have also expanded the existing knowledge base on motivations to engage in interactions by taking into account the perspectives of *three* parties: not only academic researchers and industry, but also university management. Importantly, we focus not so much on the perceptions resulting from established or completed collaborations, but rather on the perceptions of companies and researchers present *prior to* the formation of collaboration. We contribute to deepen the understanding of U-I interactions by addressing two research questions: 1) which different types of U-I interactions do the tools employed by university management create? and, 2) how does university management connect these different types of U-I interactions? In addressing the second research question, we also consider the perceptions of companies and researchers in terms of the values they obtain from U-I interactions, as these perceptions can influence the university management's efforts to create U-I interactions.

The remainder of this paper is organized as follows: the next section presents a brief review of previous studies on U-I interactions, followed by our methodological approach describing the connection between the two cases, and how and what data has been collected. Following the methodology, an empirical section features our two cases. The next section discusses our empirical data, presenting our contributions to existing knowledge about U-I interactions. The paper concludes by highlighting issues for further research and giving implications for both policy and practitioners involved in supporting U-I interactions.

2. Previous studies on U-I interactions

Labelled as the 'Grey zone' by Nilsson *et al.* (2010), the academic knowledge diffusion mechanisms alternative to patents, licenses and spin-offs can take many forms. These include publications and conference presentations, informal and pre-formal discussions, networking, hiring of students, shared personnel, labour movement, sponsored (contract) research, collaborative (joint) research and consulting services (Bercovitz and Feldmann, 2006; Perkmann and Walsh, 2007; Nilsson *et al.*, 2010; Perkmann *et al.*, 2013). Except for the first two forms, the other mechanisms entail an *interaction* between university researchers and industry representatives, a phenomenon which Perkmann *et al.* (2013) refer to as "academic engagement" in their review.

This concept reflects the focal point of departure for most literature on U-I interactions, namely the individual academic researcher (Ibid). The

literature investigates specifically who these individuals are, such as their position, experience, age, gender, and what kind of interaction (i.e., how) they engage in to diffuse their knowledge and expertise, such as licenses, sponsored/contract research, collaborative/joint research projects or consulting services (see e.g., Link *et al.*, 2007; Boardman and Ponomariov, 2009; Haeussler and Colyvas, 2011).

When it comes to the question of "why" academic researchers choose to engage with industry, the literature mainly focuses on organizational determinants: for instance, the features of the university or department (Perkmann *et al.*, 2013) and group-level norms (Louis *et al.*, 1989; Stuart and Ding, 2006; Bercovitz and Feldman, 2008) as well as institutional determinants, such as career systems (Lee, 1998) and competition intensity (Henrekson and Rosenberg, 2001; Goldfarb and Henrekson, 2003) viewed as factors for motivating researchers. Instead of an organizational or institutional perspective, D'Este and Perkmann (2011) are among those few to have the individual in focus for this "why" question and find that a primary reason for researchers to interact with industry is furthering their research, rather than commercializing their knowledge.

Lee (2000) takes into account the perceptions of *both* individual researchers and industrial representatives when analysing their motivations to engage in interaction and finds that researchers primarily aim to secure funds and further their research, while industry aim to solve technical problems and advance their product development, but also search 'blue sky' research opening for new technologies. Common for most literature is also that it analyses *established or already completed* collaborations between academic researchers and industry with a bias towards experienced rather than anticipated benefits, hence our research aim to investigate U-I interactions prior or during their emergence.

While the role of TTOs and other innovation-supporting units of universities is widely recognized and studied within the linear spin-out funnel (see e.g., Lockett and Wright, 2005; Mowery, 2005), it is less explored in shaping U-I interactions. However, evidence suggests that TTOs and especially universities' Industrial Liaisons Offices play important roles (Bercovitz and Feldman, 2006), such as conducting formal, but intermittent interactions (e.g., negotiations) with industrial partners (Debackere and Veugelers, 2005). Thus, our research aims to penetrate into how university management can shape U-I interactions.

More precisely, it is relevant to analyze which type of interactions the university management can shape, as they greatly differ in terms of motivations of the actors involved and their intensity (Bonaccorsi and Piccaluga, 1994), as well as their duration and depth. In particular, we rely in this paper on the typology of U-I interactions proposed by Baraldi *et al.* (2013), which relies on the inter-organizational theory of relationships (Håkansson and Snehota, 1995) and, based on their *degree of interdependence* and *time perspective*, distinguishes between the following types (see also Table 1): "participation", "cooperation", "collaboration" and "relationship".

Tab. 1: Typology of U-I Interactions

Participation	The action of taking part in something
Cooperation	The action or process of working together to the same end
Collaboration	The action of working with someone to produce something
Relationship	Long-term, deep connection between two or more actors

Source: Adapted from Baraldi *et al.*, 2013

3. Methodology

This paper relies on a qualitative case study methodology (Yin, 2014), based on two cases about two different interaction-stimulating tools devised and applied by Uppsala University: AIMday (standing for Academy Industry Meeting day) and SMURF (Swedish acronym translated into "Small enterprises collaborating with researchers at Uppsala universities"). The two cases are extracted from the same organizational context and reflect an "embedded case" methodology (Ibid). These two interaction-stimulating tools address different types of U-I interactions, which are the focal point of our paper. More precisely, AIMday is a tool stimulating researchers and industry to interact unconditionally, and in its broadest sense, by making them discuss issues that are of interest for both parties. The purpose of SMURF was, on the other hand, to create a platform that facilitated and financed short *collaboration* projects between SMEs and researchers. Like AIMday, the goal of SMURF was to provide commercial values to companies while, at the same time, it expanded the research horizons for the academic researcher(s).

The two cases are part of two separate larger longitudinal studies on how the two interaction-stimulating tools developed and their effects. However, the large amount of empirical data gathered was analysed following an abductive approach (Dubois and Gadde, 2002; Yin, 2014) based on constantly relating newly collected data with theoretical concepts, which in turn led new streams of data collection. During these ongoing data analyses, we saw that both similar and complementary concepts could be extracted from the two tool-specific cases. These concepts were matched with those found in the literature (e.g., researchers' motivation) and with existing typologies of U-I interactions (see Table 1). This led to an iterative process of moving between our empirics and further concept development (Yin, 2014).

The next step of our analysis was searching across both cases for the different types of interactions and using the concepts that emerged to structure our empirical section. Following the logic of Yin (2014), this means that the two cases as featured in our empirical section are not only a description of our data but also, simultaneously, a pre-analysis. The next step in the analysis of the empirical material was to build an outline of the two cases. However, while the two cases were built with a similar structure, it became more evident in our analysis that they were complementary rather than simply comparative. In fact, they provide variation and overlap in the types of interactions featured rather than pure differences.

Our empirical materials were collected between 2011 and 2014 by means of several sources of data: participant observations of 6 AIMday events and of all of the 17 projects and steer group meetings of SMURF. The main motive for partaking in these meetings was to observe the day-to-day workings of the university managers while governing these interaction-stimulating tools, which otherwise are difficult to obtain from documents. We wanted to observe the work in action rather than ex-post, in order to avoid the bias between what is written and what is actually performed in practice (Brown and Duguid, 1991). Secondary sources such as brochures, official applications, internal reports provided by university managers, researchers and companies were used to complement our observations.

Further, over 60 qualitative interviews ranging from 30 to 90 minutes were conducted with university managers, companies and researchers involved in AIMday and SMURF. The interviews were based on a semi-structured approach as this enables flexibility within the interview situations and at the same time permits a comparison of data (Bryman, 2012). All informants were informed of the research purpose before the interview. In the AIMday case, all university managers involved in developing and organizing the event have been interviewed on several occasions as well as a selected number of participating researchers and companies. For SMURF, interviews were conducted twice with all members of the project group, all the participating academic researchers and companies, and with some key actors even more often. The main themes in the interviews with representatives of the university management were the organization and process of the two interaction-stimulating tools, their goals and effects. Interviews with companies and researchers covered instead the actors' perception of the interactions as well as the effects created by AIMday and SMURF.

4. Empirical study

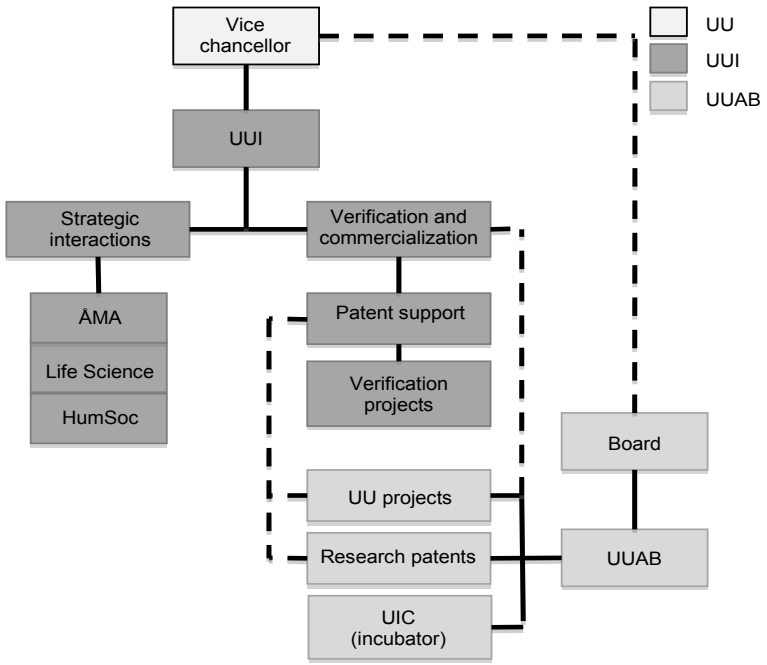
In this section we outline our empirical material, with a focus on the core concepts that will be discussed in the following section: in particular, we focus on how the university managers in charge of AIMday and SMURF stimulate the creation of U-I interactions.

4.1 Uppsala University's strategy for innovation support

Founded in 1477, Uppsala University is Scandinavia's oldest university and amongst the top 100 ranked universities in the world today (topuniversities.com), performing intensive research, spanning all scientific disciplines. With its TTO (UUAB, Uppsala University Development Limited) in place since 1995, the university answered to a governmental directive in 2005, demanding Swedish universities to take greater actions in supporting innovation, by forming an industrial liaison office. The new organization, named Uppsala University Innovation (UUI) and placed within the university, directly under the Vice-chancellor, officially started its operations in 2007 with the support of governmental funding. Manned with about 25 full-time employees, UUI is now responsible to lead and

coordinate the University's efforts to support economic growth in society via the creation of collaborations with commercial enterprises (uuinnovation.se). The coordination of collaboration between academic research and industry works through three cooperation platforms targeted to the areas of materials, Life Sciences and Humanities and Social Sciences respectively, in which interaction activities between researchers and external practitioners are arranged. While, for example, the cooperation platform ÅMA (Ångström Materials Academy) is specific to materials research, AIMday and SMURF are two interaction-stimulating tools embracing several scientific domains.

Fig. 1: Organizational map describing the relationship between Uppsala University's Industrial liaison office (UUI) and Technology transfer office (UUAB)



Source: Uppsala University Innovation

4.2 AIMday and SMURF

With 32 representatives from 11 companies and 67 academic researchers participating to discuss 23 different questions formulated by companies, the first AIMday called AIMday Materials was launched on November 5, 2008. AIMday is a one-day conference composed of a number of workshops running in parallel. In each workshop a multidisciplinary group of academic researchers discusses a problem or another issue formulated by the participating company. According to the managers of UUI, an industrial focus, instead of progresses within research, enables companies and researchers to meet on more equal conditions, and focusing on discussions instead of traditional presentations, means that scientific knowledge becomes directly applied to industrial needs and at the same time it also

facilitates the creation of collaboration projects. Since 2010, AIMday has been trademarked and is now organized as an interaction-stimulating tool in a variety of fields like Materials, Imaging, Energy, Sustainability, Cancer, Diabetes, Food, Patient safety, Aging, and Public management. Today, AIMday is an interaction-stimulating tool implemented not only by Uppsala University, but also by a variety of universities, both Swedish and international, several times a year. Unsurprisingly, AIMday is one of Uppsala University's most important facilitators for U-I interactions.

Conducted between 2011 and 2014, SMURF, was a project that, differently from AIMday, focused directly on the formation of *collaboration projects*. SMURF was officially a joint-program between Uppsala University and the other university in Uppsala, the Swedish University of Agricultural Sciences (SLU), which obtained a total of 2 million euros from the Swedish Agency for Economic and Regional Growth. The goal of SMURF was straightforward: facilitating the formation of collaboration projects between SMEs and researchers by providing smaller grants (about 25.000 euros per project). The strategy of offering funding aimed to provide additional incentives for researchers and SMEs to find each other and engage in deeper interactions. The project had also an outspoken aim to stimulate only new collaborations, in an attempt to reach out to SMEs that had no previous interaction with a university.

Having two tools aimed at creating closer interactions between academic researchers and practitioners, UUI identified the opportunity of strengthening both tools by connecting them and thus making them complement each other. By offering SMURF funding during the AIMday events, UUI hoped to increase the formation of collaborations already via AIMday, a tool which otherwise foremost facilitates information and knowledge sharing between the parties, rather than deeper collaborations. At the same time, UUI could increase the number of applicants to SMURF via AIMday, a tool through which many researchers and companies found common interests. The UUI managers who formulated the SMURF project plan thought that, before engaging in a full collaboration, a researcher and a company might need to evaluate their initial idea. Therefore, each collaboration project could apply for a small "pre-study" grant, which was meant to demonstrate if the idea was feasible and to provide a motive for a larger grant from SMURF, which could support a "full project". As SMURF was in part created to facilitate funding for projects initiated from AIMday, the "pre-study" money was also advertised on most AIMdays as a chance for researchers and companies to further explore shared ideas that emerged during the discussions on an AIMday, and that could possibly lead to full collaboration projects.

4.3 The processes of AIMday and SMURF

Referring to AIMday, the UUI managers stress that a multidisciplinary group of researchers is important to generate more than one point of view on the issue at hand. All companies that associate themselves to the theme of a particular AIMday conference are welcome to participate as long as they submit at least one question. The UUI managers put a lot of effort in

marketing every AIMday and its topic in order to receive questions from the industry. According to the UUI managers, this process requires both a good knowledge about the operations of different companies and a good contact network with the industry. When questions from the industry are received, UUI invites academic researchers with relevant competence to register so as to participate in the discussion of the questions at hand. Researchers from all universities are welcome. However, it often takes hard work for UUI in terms of pitching the questions to make them both understandable and interesting for the researchers. UUI managers often need to contact researchers they think have the knowledge about the question to get some feedback about their perception of the question. Thereafter, the UUI managers contact the company responsible for the question and discuss how to pitch it to the researchers without losing its meaning to the company. This requires some knowledge of the topic from the UUI managers themselves. When all questions are finally defined, UUI still often needs to contact researchers, whose competence may fit the questions' different facets, including reminding them to register, as researchers often prioritise other work than their participation in AIMday. Therefore, a good contact network between the cooperation platform managers and researchers is vital.

Organizing an AIMday requires the work of 3-4 persons over 3-4 months, all of which are experienced of both industry and academia, having often previously worked in both contexts (see Jonsson, Baraldi, Larsson, Forsberg & Severinsson, 2015). The cost for organizing an AIMday varies between 30,000 and 40,000 euros, depending on the size of the events, with the costs for personnel from UUI being the major cost (about 21,000 euros), followed by food, advertising materials and, for other universities, a licensing fee (5,000 euros).

Even though SMURF was targeted directly at the formation of collaboration projects via its funding, there was a process similar to AIMday in order to engage companies and researchers to apply for the available grants, which was however stretched over a three-year period. According to the UUI managers, the project followed a loosely structured work procedure that started with rallying SMEs to the project via information activities aimed at getting them in contact with the universities' researchers. There were two basic ways in which companies were brought into SMURF: firstly, spreading information about SMURF via relevant marketing channels as well as information activities about the opportunity of project funding during an AIMday; secondly, just like AIMday, UUI managers' network of contacts with both researchers and companies played a key role in involving relevant actors. The specific process of engaging a given researcher to interact with a given SME in a specific collaboration project followed two different paths: either the researcher and the SME made a connection on their own (for instance on AIMday), or SMURF project managers exploited their contact network in the university and its scientific areas and asked a specific department or even individual researchers if they were interested in the problem or need expressed by an SME.

SMURF was run by a total of seven "interaction leaders" (5 from UUI and 2 from SLU) under the leadership of UUI's deputy director, the most senior official, who acted as the main project manager. The budget

of SMURF was 2 million euros, with 1 million provided by the Swedish Agency for Economic and Regional Growth and 1 million by UUI and SLU as "in kind" contribution, that is, the working hours of their employees. The bulk of the 1 million in external financial contribution went to finance the nearly 30 collaboration projects eventually accomplished in the three years during which SMURF was operating.

4.4 Perceptions from participants to AIMday and SMURF

In this section, we outline the perceptions from both researcher and companies that participated to AIMday and/or SMURF. Instead of a formal evaluation of these two tools, understanding what the actors have gained from involving in the activities will help us identify the types of U-I interactions created as well as how the university management connects them, including the challenges this involves.

Researchers that partook in AIMday emphasized that the discussions generated mutual knowledge transfer between academy and industry. In other words, discussing industrial problems and issues broadened the researchers' competence by learning from the "real world". Thus, researchers also felt that they could reframe their research agenda to better fit industrial needs. Having a research agenda fitting industrial needs opens the possibility to find collaborations and to be granted funding, and AIMday works as a shortcut for researchers to find favourable industrial contacts. Researchers also emphasized that AIMday promotes learning from other research areas, as the workshops are comprised of multidisciplinary groups of researchers. Another important aspect with AIMday, emphasised by the researchers, is that the activity makes a good opportunity to market and sell the actual use of laboratory equipment to industry.

The researchers involved in SMURF attributed to engaging in a project with an SME several values similar to those of AIMday. Some stressed the value of establishing a long-lasting and deep relationship with industry and at the same time being able to create good connections for their graduate and undergraduate students with relevant business connections. Above all, most researchers considered it very useful to utilize their knowledge in real-life situations, to directly provide a company with useful knowledge. They felt that it was enjoyable to work with a company, that it was fun. Similarly to AIMday, a few researchers felt that it was a "booster" for their self-esteem when seeing that their knowledge was of relevance for practical problems.

There were also some differences in the researchers' perceptions of the interactions stimulated by the two tools, with SMURF-involved researchers preferring the strict and steered form of SMURF collaborations, with a clearly stated start and finish, rather than a more open-ended discussion with an industry partner typical of AIMday. AIMday and SMURF, indeed, operate in different ways, as SMURF requires a *greater commitment* and *longer duration* of interaction from the researcher, while AIMday, per se, is a one-day interaction event.

As for the companies participating in AIMday, their representatives emphasized the value of expanding their network of contacts with

academia, by getting to know new researchers, or strengthening their current relationships with those they already knew. A common perception for these companies was also that there seldom was a direct utilization of science to solve a concrete industrial problem. Instead they underlined that, through the discussions on AIMday they could expand and deepen their understanding of a problem, which could save them both money and time. Most companies also felt that researchers were very good at providing insights on new relevant literature and key articles on a certain topic. Another important value expressed by industrial participants was that AIMday opened the opportunity to utilize analytical methods, tests and state-of-the-art laboratory equipment, which are resources most companies do not possess in-house.

The companies involved with SMURF also stressed a variety of values deriving from these interactions with researchers: they could get new perspectives on the problem they worked on together with the researcher; some of the SMEs involved with solving a technical problem got access to laboratory equipment through the project which they would never afford; many companies also considered that by connecting a researcher to their business, they could increase their reputation. Moreover, the SMEs expressed how useful it was to have the chance to work with a researcher without taking the risk to spend their own resources, as especially the smallest firms would never afford hiring external consultants regardless of the value of the project. It seemed that the value of SMURF for the SMEs was twofold: firstly, it is very important that there is a clear goal to aim at, so that the pay-off of collaborating with a researcher is evident. Secondly, the companies also expressed the importance of establishing a good connection with an expert from a university, "put it on the shelf" and use it later when there is a need for it, or to have someone to use as a reference when doing a sales pitch towards possible investors.

Many of the answers provided by the respondents showed an interesting similarity between the two cases. Even though AIMday has led to a couple of dozen small UI-collaborations, this is not what the majority of participants stress as the most important value emerging from the meetings. Both researchers and companies participating on AIMday emphasise that the main value of AIMday is "networking for networking's sake". In other terms, AIMday seems to foster the opportunity to expand, strengthen and deepen its participants' network of contacts for future needs. This is similar to many of the answers from researchers and companies engaged in SMURF. For example, when asked to value what the most important output from their collaboration projects was, most researchers and companies highlighted the contact network created rather than the project's output.

5. Discussion

5.1 Managerial efforts in creating U-I interactions

The cases of AIMday and SMURF illustrate somewhat different managerial approaches to the process of creating U-I interactions. AIMday is a tool aimed primarily at creating rewarding *meetings* with the expectation

by university management that they will lead to collaboration projects and closer relationships, whereas SMURF is a tool which provides funding with the aim to establish directly *collaboration projects* between researchers and companies. However, taking a broader perspective on the overall process of creating U-I interactions, the point of departure for both interaction-stimulating tools, and for Uppsala University's overall strategy, are *superficial* interactions between the parties, namely meetings, which then the university management aim to transform into *deeper, long-term relationships* involving, next to companies and researchers, also UUI. Below, we review this process, showing that it can take different routes in the hope of creating long-term and deep relationships. Whereas there are researchers and companies that do have long-term relationships with each other, the following analysis focuses on Uppsala University management's efforts of creating *new* such relationships.

5.2 Participation: how UUI shows value and creates interest

UUI seems to play an important role, especially in creating a superficial type of interaction, which Baraldi *et al.* (2013) term *participation*, as it simply entails the action by researchers and companies of taking part in a common event and being present together. UUI has the specific task of contacting and showing to researchers and the industry the relevance of meeting each other, thereby enabling the creation of participation. Interaction-stimulating tools like AIMday and SMURF are fundamental here because they materialize several values of participating in U-I interactions: in fact, these two tools make it possible for the university management to illustrate benefits for both parties, such as deepening one's understanding of a problem, but also obtaining additional funding or even the possibility of starting a collaboration project. AIMday and SMURF both focus on industrial problems, a strong argument for creating interest and attracting companies that are traditionally more hesitant to spend resources on interactions if these do not give them something concrete in return. In other words, by marketing the very AIMday and SMURF concepts and informing both researchers and companies about the advantages of interacting, UUI manages to craft a will to participate from both sides.

By using these two tools as a way to relate to both researchers and industry, UUI also constantly expands its own network of contacts, which acts as the starting point for different types of interactions between researchers and industry that UUI can further stimulate. When interactions between researchers and companies happen through UUI's tools, the university management also gains more knowledge about the specific counterparts, their needs and agendas, which makes it easier to directly connect them to each other on a deeper level of interaction than participation, as illustrated in the next point.

5.3 Cooperation: how UUI promotes exchanges of information and knowledge

When researchers and companies engage themselves to the level of being present together (participation), the next step for UUI is to stimulate

a deeper form of interaction whereby the two parties start to *cooperate*, that is, they exchange information and knowledge (Ibid). UUI stimulates such an exchange via AIMday by strictly orienting the discussions towards industrial problems and then identifying researchers for whom those very same problems are interesting. As explained above, university managers put a lot of effort in reformulating companies' questions so as to reach the sufficient research height but without losing their meaning to the companies. This managerial step is extremely important to ensure that both researchers and companies are not only willing to participate, but also to cooperate and thereby contribute something to the discussions. Even though SMURF seems to aim directly at the creation of an even deeper form of interaction, namely *collaboration* (see section 5.4 below), it still does not get there immediately, but the collaborations it fosters are preceded by some form of cooperation, namely when a researcher and a company engage in a rewarding exchange of information and knowledge while they attempt to formulate a joint project plan hoping to receive funding. Just as the discussions occurring during the meetings on an AIMday, the joint writing of a project application for SMURF is a way for UUI to more actively steer and push researchers and companies towards each other. According to the UUI managers, neither researchers nor companies would ever consider to involve themselves in any type of interaction if they did not recognise some type of benefit.

5.4 Collaboration and deeper forms of interaction

Collaboration means working together to develop or produce something and thus entails something more than just exchanging information and knowledge, which was the hallmark of cooperation (Ibid). This also means that collaboration is more concrete and measurable, when it comes to the utilization of science, than both participation and cooperation. Thus, the creation of collaborations is very important for interaction enablers like UUI. However, looking at AIMday, this is where the managers start to lose control, because the step from discussions (cooperation) to the creation of collaboration between the same researcher and the same company is difficult to steer. Here, at the boundary between cooperation and collaboration, there seem to be other values, such a broader contact network or better technical understanding, that may make the two parties fully satisfied and uninterested to proceed further.

However, by connecting AIMday and SMURF, UUI was hoping to increase its control over the creation of collaborations: in fact, offering funding during an AIMday increases the interest of moving from cooperation to collaboration (especially for academic researchers), which also increases the number of promising collaboration applications coming to SMURF. Thereby, UUI explicitly applies a set of specific incentives aiming to influence the very nature and depth of interaction between a researcher and a company, and makes collaboration implicitly part of a sequence of interactions that, in the hopes of the university management, might prolong into the future and transform into a form of long-term *relationship* (Ibid). However, being a third party in the dyadic interaction researcher-company (Håkansson and Snehota, 1995) reduces the possibility of the university

management to influence the dynamics of the interaction. With its current interaction-enabling tools, UUI does not have the possibility of surgically intervene in a specific researcher-company interaction with ad hoc solutions to boost it. These tools do, however, create a regular basis for interactions, which might increase the chance for some interactions to take the direction of becoming long-term relationships.

Moreover, UUI and especially its AIMday tool constantly generate what may be viewed as the weakest form of interaction, namely *contacts* (i.e., acquaintances) between academic researchers and industry. Contacts are indeed "potential interactions", which may be activated or not in the future, but which in the present result into a broader network of new contacts or deeper existing contacts (Baraldi *et al.*, 2013). Both researchers and companies highly appreciate contacts, simply thanks to their potential to lead to both rewarding cooperation and collaborations and even the development of long-term relationships, but only if needed in the future.

5.5 Connecting the different types of interaction

SMURF and AIMday are very closely connected and display a range of similarities. For instance, like during the preparatory work for every AIMday, the managers of SMURF often needed to reformulate the initial problem specified by the SME so as to establish sufficient research height and be able to engage a researcher. Thus, for any of the interaction-stimulating tools there is no guarantee that researchers or companies are willing to engage from the beginning. Instead, the hard work of reformulating questions and problems is vital for the functioning of both tools. The UUI managers have to act as intermediary to get the parties to recognize that they will benefit from interacting with one another, and then share information and knowledge or involve in collaboration projects.

However, despite these similarities, the two tools are particularly suitable for creating *different* types of U-I interactions. AIMday appears to be efficient in generating two types of interactions: participation and cooperation (see also Jonsson *et al.*, 2015). "Participation" refers to meetings where both researchers and company representatives "participate", in the sense that both parties are present together. This type of interaction is however rather weak, as the counterparts might exchange nothing more than a superficial acquaintance, in the sense that they get to know each other but no resources are exchanged or activities conducted in concerted ways (Baraldi *et al.*, 2013). SMURF, too, generated the interaction type "participation", by arranging events where SMEs and UUI managers participated, but these interactions were relevant only to SMURF's early stages.

"Cooperation" is another type of interaction which appears through both tools: its main feature is that it involves some form of action conducted together towards a goal, which might or might not be shared by both the company and the university representatives (Ibid.). At its most basic level, this joint action is information and knowledge exchange, such as the discussions conducted in AIMday's meetings, whose goal is to address the problem suggested by the company, even if researchers might

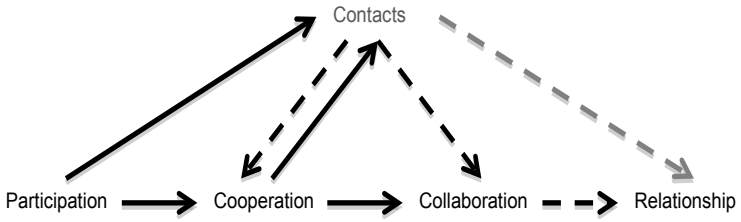
be oriented to entirely different goals, such as finding funding for their own research. SMURF also entails "cooperation", such as when researchers and companies discuss together and jointly formulate the project applications to the SMURF project group. "Cooperation" is accordingly a deeper form of interaction than "participation", even if the activities involved are only of communicative character and the resources exchanged are foremost information and knowledge.

The next type of interaction, "collaboration", entails a stronger connection between the parties than "cooperation", but, so far, it is widely visible only in the SMURF case, and appears more seldom and mostly indirectly in the AIMday case (see also Jonsson *et al.*, 2015). It is in fact a key feature of SMURF to match researchers and companies and have them conduct a joint research project, entailing a common goal, accepted by both parties and which entails conducting some form of work together. This work is also of practical character and includes activities such as research, testing and prototyping, that are not only communicative activities. Next to information and knowledge-related resources, also physical ones such as laboratory facilities and equipment can be involved in collaboration, in addition to financial resources which assume a central role as a large amount of time or other resources that are dedicated to each other and need to be paid for.

The final type of interaction, "relationship", is something that the UUI managers hope will develop as a result of continuous participation in its platforms and interaction tools. This last step in the interaction-creation process is stressed by the managers of AIMday and SMURF as something that they considered to be the end-goal of their activities and also highly sought after.

Summing up, the two reviewed tools stimulate U-I interactions that vary in terms of depth and time orientation: from shallow and time-constrained *participation*, to *contacts* (which are more long-term interactions), *cooperation* and deeper *collaboration*, all in the hope of eventually obtaining long-term *relationships* (Baraldi *et al.*, 2013). Figure 2 shows how the university managers in our cases connect these different interaction types into a process of creation of U-I interactions, which can take on different routes. In fact, this model should not be taken as linear and deterministic, because two interacting parties can always exit from the sequence and delimit themselves maybe to simple "participation" instead of moving towards a relationship, which remains a hard-won trophy in this context. Actually, the key underlying mechanism which drives the movements towards relationship is the parties' willingness to deepen their *commitment*, which in turn depends on their *trust* in each other (Jonsson *et al.*, 2015; Håkansson and Snehota, 1995).

Fig. 2: The process of creation of university-industry interactions and their connections



Source: Adapted from Baraldi *et al.* (2013)

The fact that the creation of U-I interactions is not deterministic depends not only on the will of the involved parties, but also on the *limitations* of the interaction-stimulating tools applied by university managers: for instance, AIMday seems to be a tool more apt to create cooperation but not collaboration, while SMURF was bound to finance only collaborations between researchers and companies without previous closer interactions. Furthermore, SMURF could not finance the next development steps following a concluded collaboration that could lead to more joint activities and deeper resource combinations and even a long-term relationship. The rationale was that, if the parties really value their collaboration and intend to continue for the longer-term, they should be able to commit more resources and either finance the interaction themselves or make the effort to find third-party financing, for which SMURF can provide only consultation. However, an even bigger hinder to moving to deeper types of U-I interactions is that the researchers and companies involved in the two tools see the main value for them in building *contact networks* and *exchanging knowledge* rather than concrete outputs, such as patents or new products: and this applies also for the participants in SMURF, which indeed specifically targeted collaborations.

6. Conclusions

This paper discussed how the university management intervenes in creating university-industry interactions, that is, a set of alternative mechanisms for diffusing knowledge between academia and industry (Nilsson *et al.*, 2010; Perkmann *et al.*, 2013). As for our first research question, we contribute a detailed account of how particular interaction-stimulating tools help university managers create four main types of U-I interactions, namely "participation", "cooperation", "collaboration", and "relationships", characterized by different but complementary depth and duration. As for our second research question, our results stress the importance of devising tools covering all types of interactions and of understanding the connections among them, so that interaction-stimulating tools can be used in concert. However, there seems to be challenges in moving from shallow (participation) to deeper types of interactions (especially collaborations and relationships). The deeper the

interaction becomes the more challenging it is for the university management, as a third party, to control it. Even the step of making the parties cooperate seems to demand a lot of effort from the managers of SMURF and AIMday: this is however a crucial step as this is where university management has an opportunity to steer the parties closer together by making them exchange knowledge and thereby get a better understanding of each other. Moreover, there seems to be, at the boundary between "cooperation" and "collaboration", other values pursued by researchers and companies, such as building a broader contact network or simply improving the understanding of a topic, that may make the two parties fully satisfied and uninterested in proceeding further, which would also require increased mutual trust and commitment. However, providing funding as an incentive which supplements direct commitment can help university managers to increase their control over the creation of collaborations: in fact, offering funding during an AIMday increased the interest of moving from cooperation to collaboration, which also increased the number of promising collaboration applications coming to SMURF.

Further research based on our findings includes firstly validating the process model over the creation of U-I interactions by analysing other cases from other universities. In particular, the "relationship" type of interaction deserves to be investigated more closely, something which the two chosen tools did not cover, as well as the connections between the other types of interactions and relationships: in particular, what are the mechanisms by which relationships emerge from an underlying substrate of collaborations, participations or even simple contacts?

Our results also suggest policy implications for agencies and university units engaged in the diffusion of science to society or in stimulating economic growth based on academic research. A strategy focussing on U-I interactions aiming at building relationships, or at least collaborations, with industry should not be seen as a simpler alternative to playing the "market game" which is necessary for commercializing patented discoveries. While the "market game" is difficult and risky because no licensors, customers or financiers might be found for a scientific discovery, the U-I interaction-centred approach faces the difficulties implicit in creating and controlling inter-organizational relationships (Håkansson and Snehota, 1995): it is relatively easy to create contacts, participation and even cooperation between researchers and companies, but things become more complicated when the goal is crafting actual collaborations and especially long-term deep relationships.

References

BALCONI M., BRUSONI S., ORSENIGO L. (2010), "In defense of the linear model: An essay", *Research Policy,* vol. 39, n 1, pp. 1-13.

BARALDI E., FORSBERG P., SEVERINSSON K. (2013), C*rafting University-Industry Interactions: A typology and empirical illustrations from Uppsala University,* Sweden, Proceedings of the 2nd University-Industry Interaction Conference, Amsterdam.

BONACCORSI A., PICCALUGA A. (1994), "A theoretical framework for the evaluation of university-industry relationships", *R&D Management,* vol. 24, n. 3, pp. 229-247.

BOARDMAN P.C., PONOMARIOV B.L. (2009), "University researchers working with private companies", *Technovation*, n. 29, pp. 142-153.

BELL D. (1999) (originally published in 1973), *The coming of Post-Industrial Society - A venture in social forecasting*, Basic Books, New York.

BERCOVITZ J., FELDMANN M. (2006), "Entrepreneurial Universities and Technology Transfer: A Conceptual Framework for Understanding Knowledge-Based Economic Development", *Journal of Technology Transfer*, vol. 31, n. 1, pp. 175-188.

BERCOVITZ J., FELDMANN M. (2008), "Academic entrepreneurs: organizational change at the individual level", *Organization Science*, n. 19, pp. 69-89.

BROWN J.S., DUGUID P. (1991), "Organizational Learning and Communities-of-Practice: Toward a Unified View of Working", *Organization Science*, vol. 2, n. 1, pp. 40-57.

BRYMAN A. (2012), *Social research methods. 4th ed*. Oxford University press inc. New York.

CLARYSSE B., WRIGHT M., LOCKETT A., VAN DE VELD E., VOHORA A. (2005), "Spinning out new ventures: a typology of incubation strategies from European research institutions", *Journal of Business Venturing,* vol. 20, n. 20, pp. 183-216.

DEBACKERE K., VEUGELERS R. (2005), "The role of technology transfer organizations in improving industry science links", *Research Policy*, vol. 34, n. 3, pp. 321-342.

D'ESTE P., PERKMANN M. (2011), "Why do academics engage with industry? The entrepreneurial university and individual motivations", *The Journal of Technology Transfer*, vol. 36, n. 3, pp. 316-339.

DUBOIS A., GADDE L.E. (2002), "Systematic combining: an abductive approach to case studies", *Journal of Business Research*, n. 55, pp. 553-560.

EDQVIST O. (2003), "Layered Science and Science Policies", *Minerva*, vol. 41, n. 3, pp. 207-221.

EISENHARDT K.M., GRAEBER M.E. (2007), "Theory Building from Cases: Opportunities and Challenges", *Academy of Management Journal*, vol. 50, n. 1, pp. 25-32.

ETZKOWITZ H. (2008), *The Triple Helix - University-Industry-Government Innovation in Action*, Routledge, New York.

ETZKOWITZ H., WEBSTER A., GEBHARDT C., TERRA B.R.C. (2000), "The future of the university and the university of the future: evolution of ivory tower to entrepreneurial paradigm", *Research Policy*, vol. 29, n. 2, pp. 313-330.

FLORIDA R., COHEN W.M. (1999), "Engine or infrastructure? The university role in economic development", in Branscomb L.M., Kodama F., Florida R. (Eds.), *Industrializing Knowledge: University-Industry Linkages in Japan and the United States,* Cambridge: MIT Press, Cambridge, pp. 589-610

GIBBONS M., LIMOGES C., NOWOTNY H., SCHWARTZMAN S., SCOTT P., TROW M. (1994), *The new production of knowledge - The dynamics of science and research in contemporary societies*, Sage Publications Ltda, London.

GOLDFARB B., HENREKSON M. (2003), "Bottom-up versus top-down policies towards the commercialization of university intellectual property", *Research Policy*, vol. 32, n. 4, pp. 639-658.

GRANDIN K., WORMBS N., WIDMALM S. (eds.), (2004), *The Science-Industry Nexus. History, Policy, Implications*, Science History Publications, Sagamore Beach, MA.

GULBRANDSEN M., SLIPERSÆTER S. (2007), "The third mission and the entrepreneurial university model", in Bonaccorsi A., Daraio C. (Eds.), *Universities and Strategic Knowledge Creation: Specialization and Performance in Europe,* Edward Elgar, Cheltenham, pp. 112-143.

HAEUSSLER C., COLYVAS J.A. (2011), "Breaking the ivory tower: academic entrepreneurship in the life sciences in UK and Germany", *Research Policy,* n. 40, pp. 41-54.

HENREKSON M., ROSENBERG N. (2001), "Designing efficient institutions for science- based entrepreneurship: lesson from the US and Sweden", *The Journal of Technology Transfer,* vol. 26, n. 3, pp. 207-231.

HÅKANSSON H., SNEHOTA I. (eds.), (1995), *Developing Relationships in Business Networks,* Routledge, London.

JONSSON L., BARALDI E., LARSSON L.E., FORSBERG P., SEVERINSSON K. (2015), "Targeting Academic Engagement in Open Innovation: Tools, Effects and Challenges for University Management", *Journal of the Knowledge Economy,* vol. 6, n. 3, pp. 522-550.

LEE Y.S. (1998), "University-industry collaboration on technology transfer: Views from the Ivory Tower", *Policy Studies Journal,* vol. 26, n. 1, pp. 69-84.

LEE Y.S. (2000), "The Sustainability of University-Industry Research Collaboration: An Empirical Assessment", *Technology Transfer*, 25, 111-133.

LINK A.N., SIEGEL D.S., BOZEMAN B. (2007), "An empirical analysis of the propensity of academics to engage in informal university technology transfer", *Industrial and Corporate Change,* vol. 16, n. 4, pp. 641-655.

LOCKETT A., WRIGHT M. (2005), "Resources, capabilities, risk capital and the creation of university spin-out companies", *Research Policy,* vol. 34 n. 7, pp. 1043-1057.

LOUIS K.S., BLUMENTHAL D., GLUCK M.E., STOTO M.A. (1989), "Entrepreneurs in academe: an exploration of behaviors among life scientists", *Administrative Science Quarterly*, vol. 34, n. 1, pp. 110-131.

MARKMAN G., SIEGEL D., WRIGHT M. (2008), "Research and technology commercialization", *Journal of Management Studies*, vol. 45, n. 8, pp. 1401-1423.

MOWERY D. (2005), "The Bayh-Dole act and high-technology entrepreneurship in US universities: Chicken, egg or something else?", in Libecap G. (ed.), *University entrepreneurship and technology transfer: Process design, and intellectual property,* Elsevier, Oxford, UK, pp. 39-68.

MOWERY D.C., SAMPAT B.N. (2005), "Universities in National Innovation Systems", in Fagerberg J., Mowery D.C., Nelson R.R. (eds), *The Oxford Handbook of Innovation*, Oxford University Press, Oxford, pp. 209-239

NILSSON A.S., RICKNE A., BENGTSSON L. (2010), "Transfer of academic research: Uncovering the grey zone", *Journal of Technology Transfer*, vol. 35, n. 6, pp. 617-636.

O'SHEA R., CHUGH H., ALLEN T. (2008), "Determinants and consequences of university spinoff activity: a conceptual framework", *Journal of Technology Transfer*, vol. 33, n. 6, pp. 653-666.

PERKMANN M., WALSH K. (2007), "University-industry relationships and open innovation: Towards a research agenda", *International Journal of Management Reviews,* vol. 9, n. 4, pp. 259-280.

PERKMANN M., TARTARI V., MCKELVEY M., AUTIO E., BROSTRÖM A., D'ESTE P., FINI R., GEUNA A., GRIMALDI R., HUGHES A., KRABEL S., KITSON M., LLERENA P., LISSONI F., SALTER A. (2013), "Academic engagement and commercialisation: A review of the literature on university-industry relations", *Research Policy*, vol. 42, n. 2, pp. 423-442.

SOBRERO M. (2013), "Academic engagement and commercialisation: A review of the literature on university-industry relations", *Research Policy,* vol. 42, n. 2, pp. 423-442.

STUART T.E., DING W.W. (2006), "When do scientists become entrepreneurs? The social structural antecedents of commercial activity in the academic life sciences", *American Journal of Sociology*, n. 112, pp. 97-144.

PHAN P.H., SIEGEL D.S. (2006), "The effectiveness of university technology transfer: lessons learned from qualitative and quantitative research in the US and UK", *Foundations and Trends in Entrepreneurship*, vol. 2, n. 2, pp. 66-144.

ROTHAERMEL F.T., AGUNG S., JIANG L. (2007), "University entrepreneurship: a taxonomy of the literature", *Industrial and Corporate Change*, vol. 16, n. 4, pp. 691-791.

SELLENTHIN M.O. (2009), "Technology transfer offices and university patenting in Sweden and Germany", *The Journal of Technology Transfer,* vol. 34, n. 6, pp. 603-620.

YIN R.K. (2014), *Case study research: Design and methods*, Fifth Edition, Sage Publications, Thousand Oaks, CA.

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Feature

Susanna Martucci racconta la nascita di Perpetua La Matita[1]

Non so voi, ma io credo alle coincidenze.: quello che ci succede non accade per caso.

E mi spiego.

Nel 1981 mi laureo in Giurisprudenza, ma non mi va di fare l'avvocato, entro subito nell'organizzazione commerciale di un'importante azienda, per la quale mi occuperò di vendite.

Dopo 14 anni però l'azienda decide di chiudere l'intera rete in Italia: mi ritrovo con una struttura di 20 persone e senza prodotti da vendere.

Trovo velocemente un'altra opportunità: vendere alle aziende oggetti promozionali d'arte e di design.

Ma anche nel lavoro, come nella vita, le sorprese sono sempre dietro l'angolo. Dopo un paio d'anni "il mio partner" decide di gestire in prima persona le vendite e cosa fa? Non mi rinnova il contratto in scadenza e mi porta via la migliore venditrice.

Per la seconda volta rimango senza prodotti da vendere e con 19 collaboratori che aspettano le mie decisioni!

Ragazzi, in momenti simili ci si fa prendere dal panico!

Ma, per come sono fatta io, una giornata per piangersi addosso è abbastanza.

Sono questi i momenti in cui viene fuori il carattere delle persone.

Vi racconto da dove penso venga il mio.

Sono la terza figlia femmina di un Generale dell'Esercito, se fossi stato un maschio i miei genitori avrebbero gradito! Sono cresciuta al motto "compi il dovere e taci"!

Dagli 11 ai 16 anni, finita la scuola, ho nuotato a livello agonistico: fino a 20 km al giorno, tutti i giorni dell'anno, tranne la domenica perché c'erano le gare. A volte le vinci, a volte le perdi.

Quando ho perso, però, non mi è mai passato per l'anticamera del cervello di abbandonare, anzi la sconfitta mi ha sempre spinta ad allenarmi di più e con maggior determinazione.

Bisogna reagire subito, una giornata
per piangersi addosso è abbastanza.
Appunto!

E quindi comincio a pensare: "Ok Susanna, per due volte ti hanno portato via i prodotti da vendere, e senza prodotti niente lavoro. Beh, non

[1] Riportiamo in queste pagine una rivisitazione dell'intervento che Susanna Martucci, Amministratore Unico di Alisea ha tenuto al TedX a Vicenza il 7 maggio 2016.

succederà più." Decido in quel momento che i prodotti da vendere me li devo fare io!

Non solo. Mi rendo conto che nel mondo degli oggetti promozionali per le aziende, i cosiddetti gadget, quasi tutto è Made in China: a nessuno interessa se il sistema di produzione rispetta o meno le persone. Sono belli e i prezzi sono strepitosi, tanto basta.

Quindi capisco anche che se non voglio trovarmi di nuovo a piedi, dovrò realizzare qualcosa di così diverso ed unico da non avere concorrenza sul mercato.

I miei oggetti dovranno essere l'assoluto opposto dell'ordinario!

Penso ancora: "Brava Susanna, ma cosa puoi fare di così originale?"

E qui entra in gioco la fortuna, il destino, chiamiamolo il caso…?

Sono in un bar, ricevo un regalo da una persona che conosco appena di vista: un quadernino in carta riciclata, niente di eccezionale, ma su quel quaderno c'è una scritta:

"nessun albero è stato abbattuto per la produzione di questo quaderno".

Immediatamente la luce, una connessione immediata con un ricordo che, senza saperlo, era nascosto in un angolo della mia mente.

Siamo agli Inizi anni'80, sono in treno e nel mio scompartimento ci sono due professori universitari che parlano tra loro ed io che ascolto:

… siamo già seduti sopra un'immensa pattumiera

… i rifiuti saranno un problema enorme per le generazioni future e per l'ambiente

… dobbiamo cominciare ad occuparcene da subito

… i rifiuti diventeranno un grande business in futuro …

Io avevo 23 anni, quei due professori parlavano di futuro, e io ho capito che stavano parlando anche di me!

Quindi dopo 16 anni tutto magicamente si connette. Il quaderno, il treno …. è chiaro perché credo al caso?

Capisco finalmente cosa devo fare: per continuare il mio lavoro :

fare oggetti di design, produrli in Italia, realizzarli esclusivamente con materiali riciclati o di recupero e raccontare la storia dei miei oggetti attraverso la storia dei materiali con cui sono realizzati.

Oggetti Comunicanti. Ecco come li chiamerò.

È il 1997 e a parte carta riciclata e cuoio rigenerato non si trova granchè.

Dove reperire i materiali?

E qui inizia la mia re-evoluzione:

Penso di chiedere al mio cliente: ma tu che scarti hai?

E con questi scarti realizzerò per lui oggetti unici

Da allora di Oggetti Comunicanti ne abbiamo fatti veramente tanti.

Un esempio tra tanti :sono da un cliente e alla domanda "che scarto hai?" mi risponde: "bucce di pomodoro"!

E io mi chiedo immediatamente: come si fa a dare una seconda chance a delle bucce?

Penso subito a Lorenzo che conosco da tempo. Ha un'azienda artigiana che produce magnifici oggetti di design in cera.

A lui chiedo: "ti va di realizzare per me i tuoi oggetti inserendo però nella lavorazione le bucce secche dei pomodori?"

Sono bellissime, vedrai che belli oggetti faremo assieme!- Lo incalzo

Ed ecco che dall'unione di cera d'api e bucce essiccate nascono vasi, candele e centri tavola.

Un'altra volta sono con la responsabile marketing dell'importatore ufficiale di un grosso gruppo automobilistico.

Ha bisogno di fare un gadget di basso costo (parla di 100.000 pezzi).

Le chiedo "che scarti ha?" la risposta è "componentistica di auto rottamate".

Penso subito ai fanali: rossi, arancione, trasparenti e le chiedo "beh, facciamo una penna?"

La penna è l'oggetto promozionale per eccellenza! L'idea le piace.

È il cliente stesso che mi dice dove trovare i fanali rottamati

Ma come si fa una penna?

Scopro che lo stampo in acciaio per produrla costa, ai prezzi di allora, circa 70.000 euro.

Sono 70 centesimi solo di stampo, una penna cinese finita ne costa 20. Non si può fare!

Siamo nel 2000 e i produttori italiani si stanno lamentando perchè la concorrenza cinese li sta decimando.

Penso: "quanti stampi di penne esistono in giro per l'Italia che non vengono per niente o poco utilizzati?"

La mia ricerca mi porta da Gigi, produttore di penne Made in Italy e proprietario di uno stampo.

Mi presento e gli parlo della mia idea.

"Ascolta Gigi, ti do io la plastica, tu ci metti lo stampo e insieme facciamo una penna!"

Gigi accetta e così re-evoluzioniamo la sua penna.

Questo modo di lavorare mi da proprio gioia, pensiamo al caso appena descritto:

- recupero stampi di produzione poco utilizzati
- abbatto i costi del materiale e dello stampaggio
- do una mano ai nostri artigiani
- e in questo modo riesco a realizzare oggetti unici per i miei Clienti

Ci guadagniamo tutti!

Nonostante tutte le difficoltà che ho trovato nel percorrere questa strada, e che penso tutti voi possiate immaginare, quello che mi ha sempre dato la carica è la consapevolezza che stavo facendo del business SANO. Non stavo peggiorando lo stato del nostro pianeta, anzi, nel mio piccolo stavo facendo qualcosa per migliorarlo!

Mi sono accorta di fare Economia Circolare, senza sapere cosa fosse l'economia circolare!

E adesso ve lo spiego -così come è stata spiegato a me.

L' economia circolare è un'economia che è pensata per potersi rigenerare da sola; un sistema in cui le attività sono organizzate in modo che i rifiuti di qualcuno diventino risorse per qualcun altro.

Questo è quello che inconsapevolmente ho fatto per quasi 20 anni e che continuo a fare oggi ma con maggiore consapevolezza.

Ho realizzato in questi anni centinaia di Oggetti Comunicanti:

- borse e linee di prodotti per ufficio dagli scarti dei tessuti della produzione delle tende da sole
- salvadanai e cartelle porta documenti dal recupero e riciclo dei bicchieri di plastica della mensa di un gruppo bancario
- cinturini per gli orologi dalla gomma dei pneumatici fuori uso

Sto facendo un lavoro davvero bellissimo, ma sento che posso fare di più!

Con le bucce di pomodoro ho fatto dell'Up-Cycling, che consiste nel riusare gli scarti come materia prima, dando vita con creatività ad un nuovo prodotto; con le penne, nate dai fanali, ho fatto del Re-Cycling, cioè ho riciclato gli scarti e, dopo un processo di lavorazione, li ho usati per dare vita ad un nuovo prodotto.

Cosa posso fare di più e di diverso?

Ecco che ancora una volta entra in scena il caso!

È il 2012.

Mi telefona Cristina, ha visto i miei Oggetti Comunicanti in una fiera. Lei è il braccio destro di Vittorio, che ha un'azienda che produce elettrodi per realizzare stampi in acciaio.

Mi chiede se posso realizzare dei gadget per la sua azienda, ovviamente utilizzando il loro scarto: POLVERE DI GRAFITE.

Vittorio ogni anno produce 12 tonnellate di polvere grafite, scarto inevitabile della sua produzione di elettrodi, con costi di smaltimento non indifferenti!

A proposito, sapete che fine fa la grafite in questo caso?

Finisce sotto terra, in discarica, nessuna chance.

La grafite…. è bellissima e per me non è uno scarto, riesco ad immaginarla unicamente come materia prima. E poi non è con la grafite che si fanno le matite, oggetto promozionale di eccellenza?

Cerco il mio Gigi, quello delle penne, e gli chiedo se conosce qualcuno che faccia matite ma scopro con grande sorpresa che in Italia nessuno più le produce.

Decido!

Voglio diventare l'unico produttore italiano di matite!

Ma, la mia matita dovrà essere diversa da tutte le altre, innovativa, di design e Made in Italy!

Ormai dovrebbe essere chiaro che il mio metodo di lavoro si basa sulle connessioni, sul fare rete…...

Chiamo Andrea che conosco per lavoro già da alcuni anni, è un perito tecnico esperto in processi produttivi e nello stampaggio di diversi materiali e Marta Giardini, un'amica architetto e fantastica designer.

Così iniziamo a provare e a provare e dopo quasi un anno nasce Perpetua La Matita l'inizio della mia vera re-evoluzione.

Con Perpetua abbiamo inventato veramente qualcosa di nuovo: il Self-Cycling! Un nuovo modo di riciclare: chi usa Perpetua ricicla e consuma scrivendo 15 grammi di grafite.

Sapete perché le matite sono fatte con due scocche di legno incollate fra loro? Perché la grafite è fragile, sporca le mani e per questo va protetta.

Perpetua invece non usa il legno, è fatta all'80% con lo scarto di Vittorio e chi la usa ricicla scrivendo 15 grammi di grafite, senza sporcarsi le mani.

Le matite con la gomma, poi, hanno un collarino di metallo che serve come supporto per l'incollaggio della gomma sulla matita.

A Marta non piaceva per nulla il collarino e io non volevo usare colla. A furia di tentativi siamo riusciti a stampare la gomma direttamente fusa al corpo in grafite.

E poi non vi è mai successo di rompere la punta di una matita e di non avere il temperino?

Perpetua la puoi temperare, ma scrive anche senza punta.

E quando mi arrabbio (e capita) posso gettarla, raccoglierla e continuare a scrivere perché Perpetua se cade non si rompe.

Grazie!

Academic or professional position and contacts

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I modelli di previsione delle insolvenze e le piccole imprese: evidenze empiriche in una prospettiva territoriale

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Abstract

***Obiettivo del paper**: Verificare se l'utilizzo di variabili qualitative inerenti il territorio e la relazione impresa-territorio consente di migliorare l'efficacia dei modelli predittivi del default della piccola impresa.*

***Metodologia**: Abbiamo applicato la regressione logistica ad un insieme di 141 piccole imprese marchigiane ed abbiamo elaborato due diversi modelli predittivi del default d'impresa: uno utilizzando solamente indici di bilancio ed uno utilizzando congiuntamente indici di bilancio e variabili territoriali.*

***Risultati**: Le variabili relative al territorio di insediamento ed alla relazione impresa-territorio consentono di migliorare l'efficacia previsionale dei modelli predittivi.*

***Limiti della ricerca**: I dati relativi alle variabili territoriali sono influenzati dalle percezioni soggettive dei rispondenti delle imprese analizzate. Non vengono impiegate ulteriori variabili qualitative come le strategie competitive adottate, le competenze del management e la gestione della conoscenza.*

***Implicazioni pratiche**: Il lavoro suggerisce la possibilità per il management di dotarsi di un modello di diagnosi dello stato di salute delle imprese e l'opportunità, per gli istituti finanziari, di integrare le variabili qualitative relative al territorio e alla relazione impresa-territorio nei processi di elaborazione dei propri modelli di credit rating. In un ottica di controllo strategico, i modelli di previsione delle insolvenze possono fungere, come strumenti di valutazione ex ante delle performance aziendali e di manifestazione dei primi sintomi di difficoltà.*

***Originalità del lavoro**: In letteratura sono relativamente pochi i precedenti studi sul contributo degli aspetti relativi al territorio per la previsione del default d'impresa.*

Parole chiave: modelli di previsione delle insolvenze aziendali; relazione impresa-territorio; regressione logistica; Pmi

***Purpose of the paper**: To test whether the qualitative variables regarding the territory and the firm-territory relationship can improve the accuracy of small business default prediction models.*

***Methodology**: We applied a logistic regression to a sample of 141 small Italian enterprises located in the Marche region and we built two different default prediction models: one using only financial ratios and one using jointly financial ratios and territorial variables.*

***Findings**: Including variables regarding the relationships between firms and their territory the accuracy rates of default prediction models is significantly improved.*

***Research limits**: The qualitative variables data collected are affected by subjective judgments of respondents of the firms studied. In addition, no other qualitative variables (such as those regarding competitive strategies, the managerial skills and the knowledge management) were included.*

***Practical implications**: The work suggests the possibility for the management to adopt a model of diagnosis of the health of businesses and the opportunities for financial institutions, to integrate the qualitative variables related to the territory and firm-territory relationship in their credit rating models. In a perspective of strategic control, default prediction models can serve as instruments of ex ante evaluation of business performance and of the first symptom of difficulty.*

***Originality of the paper**: In literature there are a very few previous studies on the contribution of the aspects relating to the territory for the default prediction of enterprises.*

Key words: default prediction modelling; firm-territory relationships; logistic regression; small firms.

1. Introduzione e sintetica review della letteratura sui modelli di previsione delle insolvenze

"Un altro record per i fallimenti, ma calano le liquidazioni" esordisce così l'ultimo osservatorio del Cerved su fallimenti, procedure e chiusure d'impresa pubblicato nel mese di Dicembre 2014.

I dati mostrano un quadro tra luci ed ombre: da un lato la crisi continua a mietere vittime, dall'altro diminuisce il numero di imprenditori che decidono volontariamente di liquidare la propria azienda: questo potrebbe indicare un miglioramento nella fiducia degli imprenditori nei confronti del contesto territoriale di riferimento.

In tema di crisi d'impresa, molti studi si sono occupati di mappare le tipologie di crisi e le cause cui possono essere ricondotte (Pencarelli, 2013), mentre altri hanno cercato di creare modelli capaci di prevedere le crisi d'impresa e di anticiparne la loro manifestazione.

In letteratura, la maggior parte dei contributi aventi ad oggetto la creazione di modelli di predizione del *default* delle imprese si caratterizzano per l'impiego degli indicatori di bilancio[1]. Lo studio di Altman (1968) è il lavoro principale che ha aperto la strada a numerosi studi empirici che testano l'efficacia degli indicatori finanziari al fine di costruire un modello di previsione delle insolvenze aziendali. L'analisi discriminante multivariata (Altman, 1968; Altman *et al.*, 1977; Deakin 1972; Blum, 1974; Edmister, 1972; Yap *et al.*, 2000; Bottani *et al.*, 2004; Carnà e Giannini, 2007; Pindalo e Rodriguez, 2004; Altman *et al.*, 2013) e l'analisi logistica (Altman e Saunders, 1996; Ohlson, 1980) sono le tecniche statistiche più utilizzate per la costruzione dei modelli previsionali.

Studi successivi hanno utilizzato le reti neurali (Vallini *et al.*, 2009; Ciampi e Gordini, 2013a), gli alberi decisionali e gli algoritmi genetici (Gordini, 2014) e le *support vector machine* (Gabbianelli e Gordini, 2015).

[1] Lo studio di Bellovary *et al.* (2007) costituisce la migliore sintesi disponibile sull'evoluzione degli studi in tema di modelli di previsione delle insolvenze. Si veda anche Gabbianelli L. (2013).

Ulteriori ricerche confrontano l'efficacia di più tecniche statistiche al fine di individuare quella che permette di ottenere un maggior potere previsionale (Altman *et al.*, 1994, Brabazon e Keenan, 2004; Espahbodi *et al.*, 1998; Altman e Sabato, 2007; Vallini *et al.*, 2008). A livello dimensionale, la maggior parte dei lavori hanno focalizzato la loro attenzione sulle medie/grandi imprese. Solamente un numero relativamente limitato ha evidenziato l'esigenza di sviluppare modelli di previsione del *default* per imprese appartenenti a classi dimensionali differenti che tengano in considerazione le specifiche caratteristiche strutturali e strategiche delle piccole imprese[2]. A questo riguardo alcuni studi, oltre agli indicatori di bilancio, hanno testato il potere predittivo delle caratteristiche del management come le loro motivazioni e convinzioni, le competenze possedute, le esperienze lavorative pregresse e la relazione con la proprietà (Blanco *et al.*, 2012; Ciampi e Gordini, 2012) oppure gli aspetti relativi alla *corporate governance*, (Ciampi e Gordini, 2013b; Ciampi, 2015). Altri contributi si sono focalizzati sull'innovazione ed il ruolo degli *intangibles* (Formisano e Russo, 2012) piuttosto che la relazione tra le imprese ed il territorio (Gibilaro e Piatti, 2012; Ciampi e Gordini, 2013c) o il capitale strutturale delle pmi (Modina e Pietrovito, 2014). Tutti questi filoni hanno dimostrato che l'utilizzo di variabili qualitative, in aggiunta agli indicatori di bilancio, restituiscono un miglior potere predittivo dei modelli di previsione delle insolvenze. Sulla scia dello studio condotto da Ciampi e Gordini (2013c), questo lavoro intende proporre un modello previsionale continuativo il cui obiettivo è verificare se l'utilizzo di variabili relative al territorio ed alla relazione impresa-territorio consente di migliorare l'efficacia dei modelli predittivi del *default* delle piccole imprese marchigiane.

Nei paragrafi seguenti si illustreranno la metodologia di ricerca seguita, i risultati ottenuti ed infine le conclusioni.

2. Metodologia della ricerca

2.1 Le ipotesi di ricerca

L'obiettivo della ricerca è verificare se l'utilizzo di variabili qualitative relative al territorio ed alla relazione impresa-territorio consenta di migliorare l'efficacia dei modelli predittivi del *default* della piccola impresa[3].

L'ipotesi di ricerca formulata è quindi la seguente: il modello previsionale costruito utilizzando congiuntamente ratios economico-finanziari, variabili inerenti il territorio di insediamento e variabili relative alla relazione impresa-territorio consente di ottenere un grado di accuratezza previsionale superiore rispetto all'utilizzo dei soli indicatori di bilancio.

[2] L'utilizzo dei soli indici economico-finanziari non è esaustivo nel momento in cui il campione d'analisi è composto da imprese di piccole dimensioni in quanto l'informazione contabile non è completa e del tutto affidabile e perché le PI sono dotate di peculiarità gestionali tipiche della loro dimensione.

[3] Metodologicamente, si tratta di una ricerca quantitativa in cui il rapporto tra teoria e pratica è strutturato in fasi logicamente sequenziali secondo un'impostazione sostanzialmente deduttiva (la teoria precede l'osservazione) ovvero dal sostegno, tramite dati empirici, della teoria precedentemente formulata (Corbetta, 1999, Bryman, 1988).

2.2 Il data set

Il campione analizzato è costituito da 141 piccole imprese localizzate nella regione Marche[4] ed estratte dagli archivi della Camera di Commercio (Tabella 2.1). L'evento di *default* individuato, pur non esistendo in letteratura una definizione univoca e generalmente condivisa, è stato l'avvio di una procedura concorsuale (fallimento, concordato preventivo, liquidazione giudiziale, concordato fallimentare). Questa è una soluzione più restrittiva rispetto a situazioni di incaglio, di sofferenza, di credito ristrutturato o di sconfinamento (Giardino *et al.*, 2010) oppure rispetto a quella di norma utilizzata in ambito bancario che identifica il default con l'insolvenza del debitore non autonomamente risolvibile tale da provocare una potenziale perdita del credito concesso. Tale scelta è, quindi, giustificata dalla necessità di adottare una definizione quanto più oggettiva possibile (di default dichiarato) al fine di ridurre al minimo l'errore di classificazione delle imprese.

Tab. 2.1: Profilo generale delle imprese del campione suddivise per il loro stato (valori percentuali)

Caratteristica Descrittiva		Imprese in default	Imprese non in default	Totale
Area Geografica (Provincia)	Ancona	8.5	19.1	27.7
	Ascoli Piceno	2.1	7.8	9.9
	Fermo	0.7	7.8	8.5
	Macerata	5.7	11.3	17
	Pesaro e Urbino	14.2	22.7	36.9
Fatturato	0 – 500.000	12.7	5	17.7
	500.000 – 1.000.000	5.7	11.3	17.0
	1.000.000 – 2.500.000	7.1	29.1	36.2
	2.500.000 – 5.000.000	5.7	23.4	29.1
Settore di Attività	Costruzioni	11.3	6.4	17.7
	Industria	12.8	48.2	61.0
	Servizi	7.1	14.2	21.3
Ruolo dell'intervistato	Amministrativo	2.1	56.7	58.9
	Curatore Fallimentare	7.8	0.0	7.8
	Professionista	16.3	2.8	19.1
	Titolare	5.0	9.2	14.2

Fonte: ns elaborazione

L'universo delle imprese in *default* è costituito da tutte le imprese marchigiane incluse negli archivi della Camera di Commercio, operanti nei rami dell'industria, delle costruzioni e dei servizi (con esclusione,

[4] La motivazione per cui ci si è focalizzati sullo studio di un territorio circoscritto è da ricondurre al fatto che la Regione annovera molteplici esperienze di imprese che hanno fondato il loro successo ed il loro vantaggio competitivo sul radicamento territoriale, come ad esempio le imprese del calzaturiero, del tessile/abbigliamento o del mobile. Alcuni di questi distretti hanno visto la loro vitalità messa in pericolo ed in discussione con l'avvento della crisi economica.

quindi, delle società immobiliari e di quelle finanziarie), entrate in stato di default nell'anno 2012 e che presentavano nel 2009 un bilancio di esercizio regolarmente depositato ed un fatturato inferiore a 5 milioni di euro. La numerosità di tale campione è risultata pari a 171.

L'insieme delle imprese non in *default* è stato selezionato tramite campionamento stratificato partendo dall'universo delle imprese marchigiane incluse negli archivi della Camera di Commercio operanti nei rami dell'industria, delle costruzioni e dei servizi, per le quali non era stata avviata una procedura concorsuale alla fine del 2012 e che presentavano nel 2009 un bilancio di esercizio regolarmente depositato ed un fatturato inferiore a 5 milioni di euro. Abbiamo selezionato il campione utilizzando le seguenti variabili: la dimensione d'impresa (sulla base delle classi di fatturato conseguito nel 2009), la provincia d'insediamento (Ancona, Ascoli Piceno, Fermo, Macerata e Pesaro e Urbino) ed il ramo di attività economica (industriale, costruzioni, servizi). Sono state così estratte 3.844 imprese marchigiane.

2.3 La selezione delle variabili indipendenti

La variabile dipendente è una variabile dicotomica che assume valore 0 nel caso di imprese in *default* e 1 nel caso di imprese non in *default*. Le variabili indipendenti consistono in 8 indicatori di bilancio e 12 variabili qualitative relative al territorio ed alla relazione impresa-territorio.

Gli indicatori economico-finanziari (Tabella 2.2) sono stati selezionati principalmente sulla base di due criteri:

1) sulla base delle principali evidenze emerse in letteratura, ovvero il loro utilizzo nella principale letteratura in tema di *default* delle PMI (Altman, 1968, 1993; Blum, 1974; Edmister, 1972; Altman e Sabato, 2007; Altman e Saunders, 1996; Gordini, 2014);
2) la loro capacità di cogliere lo stato di salute dell'impresa sotto il profilo reddituale, patrimoniale e di liquidità (Altman, 1968, 1993; Altman e Sabato, 2007; Blum, 1974; Altman e Saunders, 1996; Edmister, 1972; Altman *et al.*, 1977; Altman *et al.*, 2011; Behr e Güttler, 2007; Ciampi e Gordini, 2013a; Gordini, 2014; Crouhy *et al.*, 2001).

Gli indici di bilancio[5] impiegati ai fini dell'analisi sono stati calcolati utilizzando i dati dei bilanci relativi all'esercizio 2009 estratti degli archivi della Camera di Commercio. Per quanto riguarda le variabili relative al territorio ed alla relazione impresa-territorio, la letteratura aziendale ha approfondito le relazioni tra le caratteristiche dei contesti territoriali e la competitività aziendale ed ha individuato nel territorio un giacimento vitale per le imprese, soprattutto per quelle di piccole e medie dimensioni (Golinelli, 2002; Baccarani e Golinelli, 2011; Golinelli, 2012). Ciononostante, tali studi[6] hanno esaminato tali variabili come fattori di crescita e sviluppo delle imprese e non come variabili in grado di prevedere il *default* di impresa. Il lavoro di Ciampi e Gordini (2013c) è l'unico che ha analizzato l'efficacia di tali variabili a tale scopo.

[5] Per un approfondimento sugli indici di bilancio si rimanda a Pencarelli (2010, 2013).

[6] Per una *review* dettagliata si veda Ciampi e Gordini, 2013c.

La Tabella 2.3 mostra le variabili relative al territorio ed alla relazione impresa-territorio utilizzate in questo studio al fine di prevedere il *default* delle PMI selezionate sulla base del lavoro di Ciampi e Gordini (2013c).

Al fine di rilevare le variabili relative al territorio di insediamento ed alla relazione impresa-territorio abbiamo predisposto un questionario strutturato. Inizialmente lo abbiamo sottoposto ad un pre-test, che ci ha permesso di migliorarlo, modificandone sia la lunghezza, sia la forma di alcune delle domande (Corbetta, 1999; Fattore, 2005).

Tab. 2.2: Il set iniziale degli indicatori economico-finanziari (valori medi per gruppo)

Indicatori economico-finanziari	Imprese in default	Imprese non in default
Roe	-68.75	2.74
Roi	-5.65	6.36
Ros	-18.77	2.92
Valore aggiunto/Fatturato	-0.92	0.36
Cash flow/Totale debiti	-0.09	0.12
Cash flow/Fatturato	-2.03	0.05
Current ratio	6.13	1.60
Fatturato/Capitale investito	0.71	1.18

Fonte: ns elaborazione

Il questionario definitivo[7] è composto da 19 domande ordinate casualmente e suddivise essenzialmente in 2 parti: la prima parte aveva l'obiettivo di tracciare il profilo delle imprese analizzate, mentre la seconda riguardava la valutazione delle variabili proposte[8]. Tutte le variabili sono state misurate tramite scala Likert (valori compresi tra 1 e 5).

Il questionario definitivo è stato somministrato via *e-mail* ad un componente del consiglio di amministrazione o all'imprenditore in carica nell'anno 2009 di ciascuna piccola impresa del campione. Nel caso di procedura concorsuale in corso, il questionario è stato somministrato anche al curatore fallimentare.

[7] In appendice il questionario definitivo sottoposto alle imprese via mail.

[8] Il contenuto del questionario è:
- dati anagrafici dell'impresa (inclusi il fatturato, il numero di addetti, ed il settore di attività economica);
- ruolo della persona intervistata;
- 12 quesiti finalizzati a misurare (tramite scala di Likert) ciascuna delle 12 variabili relative alla relazione con il territorio.

Tab. 2.3: Il set iniziale delle variabili relative ai caratteri del territorio di insediamento dell'impresa ed alla relazione impresa-territorio

Variabili relative ai caratteri del territorio di insediamento dell'impresa		
VARIABILE	DESCRIZIONE	RIFERIMENTI BIBLIOGRAFICI
Caratteri tangibili del territorio	Grado di attrattività del territorio in termini di posizione geografica	Becattini (1990); Brusco (1982); Krugman (1991); Krugman (1995); Marshall (1925); Piore e Sabel (1984); Porter (1998); Varaldo (2006)
	Grado di attrattività del territorio in termini di assetto morfologico	
	Grado di attrattività del territorio in termini di infrastrutture disponibili	
	Grado di attrattività del territorio in termini di risorse naturali disponibili	
	Grado di attrattività del territorio in termini di articolazione di attività produttive svolte localmente	
Articolazione "fisica" del sistema finanziario	Grado di attrattività del territorio in termini di presenza e diffusione spaziale di istituti bancari ed altre istituzioni finanziarie	Alessandrini *et al.* (2007); Baffigi *et al.* (2000); Jimenez *et al.* (2009); Ughetto (2006)
Innovazione	Il contesto territoriale favorisce/limita i processi di innovazione	Acs *et al.* (2002); Ahuja (2000); Asheim e Coenen (2005); Asheim e Gertler (2005); Asheim e Isaksen (2002); Belussi *et al.*, (2003); Bortoluzzi e Tracogna (2011); Boschma (2005); Bottinelli e Pavione (2010); Buesa ed al. (2010); Camuffo e Grandinetti (2006); Cooke (2001); Dagnino *et al.* (2011); Doloreux e Parto (2005); Mustilli *et al.* (2011); Robertson *et al.* (2009); Santoni e Zanni (2011); Todtling e Tripp (2005); Velo (2011)
Internazionalizzazione	Il contesto territoriale favorisce/limita i processi di internazionalizzazione	Chiarvesio e Micelli (2007); Corò e Micelli (2006); Micelli e Chiarvesio (2003); Rullani (2006)
Competitività del sistema finanziario	Grado di attrattività del territorio in termini di competitività del sistema finanziario locale	Alessandrini *et al.* (2006); Liberti e Mian (2009); Lugaresi e Rotondi (2007); Rotondi (2005)
Reputazione	Grado di attrattività del territorio in termini di reputazione	Brady (2002); Cairoli (2011); Denicolai *et al.*, (2010); Ely e Valimaki (2003); Ferguson *et al.* (2000); Nooteboom (2002)
Qualità della vita	Grado di attrattività del territorio in termini di benessere e qualità della vita	Putman (1993)
Sistema delle Istituzioni Locali	Contributo delle Istituzioni Locali (enti locali, università, centri di ricerca, associazioni di categoria, ecc.) allo sviluppo imprenditoriale del territorio	Asheim e Isaksen (2002); Bozeman (2000); Camuffo e Grandinetti (2006); Cooke *et al.* (1997); Cooke e Morgan (1998); Doloreux e Parto (2005); Mele (2011); Molina-Morales e Martinez-Fernández (2003)
Variabili relative ai caratteri della relazione impresa-territorio di insediamento		
Grado di radicamento territoriale	Grado di radicamento dell'impresa sul territorio	Geringer *et al.* (2000); Hundley e Jacobson (1998); Molina-Morales e Martinez-Fernàndez (2003)
Risorse del territorio ed immagine aziendale	Impatto delle risorse del territorio sull'immagine aziendale	Brady (2002); Cairoli (2011); Denicolai *et al.*, 2010; Ely e Valimaki (2003); Engelmann e Fischbacher (2003); Molina-Morales e Martinez-Fernández (2003)
Risorse del territorio e capacità di controllo dei costi	Impatto delle risorse del territorio sulle capacità di controllo dei costi	Bellandi (2009); Belussi e Pilotti (2008); Golinelli (2002); Quadrio *et al.*, (2002); Rullani (2003)
Contributo dell'impresa allo sviluppo del territorio	Contributo dell'impresa allo sviluppo economico, sociale e/o culturale del territorio	Baccarani e Golinelli (2011)

Fonte: adattato da Ciampi e Gordini (2013c)

Al fine di incrementare il tasso di risposta abbiamo implementato un'attività di *follow up* al fine di sollecitare le imprese inizialmente non rispondenti. 141 imprese (44 in *default* e 97 in *bonis*) hanno risposto in maniera completa al questionario con un tasso di risposta del 4% (Tabella 2.4).

Tab. 2.4: Tasso di risposta al questionario on line

Imprese	Selezionate	Rispondenti	Percentuale
Imprese attive	3.844	97	2,5
Imprese in default	171	44	25,7
Totale	4.015	141	4

Fonte: ns elaborazione

Al fine di selezionare le variabili caratterizzate da maggiore potenziale predittivo (tra tutte quelle riportate nelle Tabelle 2.2 e 2.3) è stata effettuata un'analisi di multicollinearità tramite il metodo VIF-Variance *inflation factor* (Montgomery, Peck, 1992). Un elevato valore del VIF indica un elevata multicollinearità e di conseguenza un'alta correlazione fra le variabili e una ridotta capacità esplicativa del modello. La letteratura ha stabilito che valori del VIF inferiori a 3 indicano un basso livello di multicollinearità (Judge *et al.*, 1987). Sono state pertanto eliminate tutte le variabili che presentavano un valore superiore a 3. La Tabella 2.5 mostra l'elenco delle variabili selezionate ai fini dell'elaborazione dei modelli previsionali.

Tab. 2.5: Variabili selezionate tramite analisi di multicollinearità

Variabili	Modello A	Modello B
Indicatori Economico-Finanziari		
Roe	x	x
Roi	x	x
Ros		
Valore aggiunto/Fatturato		
Cash flow/Totale debiti	x	x
Cash flow/Fatturato	x	
Current ratio		
Fatturato/Capitale investito	x	x
Variabili relative ai caratteri del territorio di insediamento		
Caratteri tangibili del territorio		x
Articolazione "fisica" del sistema finanziario		x
Innovazione		x
Internazionalizzazione		
Competitività del sistema finanziario		
Reputazione		
Qualità della vita		x
Sistema delle istituzioni locali		
Variabili relative ai caratteri della relazione impresa-territorio		
Grado di radicamento territoriale		x
Risorse del territorio e immagine aziendale		x
Risorse del territorio e capacità di controllo dei costi		x
Contributo dell'impresa allo sviluppo del territorio		x

Fonte: ns elaborazione

2.4 La tecnica previsionale

La tecnica statistica più utilizzata per la costruzione di modelli previsionali del *default* d'impresa è stata per molto tempo l'analisi discriminante multivariata (Altman, 1968; Blum, 1974; Deakin, 1972; Edmister, 1972).

Tuttavia, tale metodologia statistica è efficacemente impiegabile se vengono rispettate le seguenti condizioni: 1) le variabili di *input* devono essere distribuite normalmente; 2) le matrici di dispersione di gruppo (matrici di varianza e covarianza) devono essere identiche o molto simili nei due gruppi (Barnes, 1982; Karels e Prakash, 1987).

Dal momento che le variabili previsionali da noi utilizzate (indici di bilancio) non sono né lineari né normalmente distribuite (Karels e Prakash, 1987; Ohlson, 1980), ai fini di questo studio si è scelto di utilizzare la tecnica della regressione logistica, tecnica che sembra meglio adattarsi alle caratteristiche del problema della previsione di *default* d'impresa relativamente alla natura dicotomica della variabile dipendente: 0=default, 1=sana (Altman e Saunders, 1996; Ohlson, 1980)[9]. La funzione previsionale è:

$$\text{In } [PD/(1 - PD)] = a + BX + E$$

dove PD è la probabilità di default, (1 - PD) è la probabilità di non default, a è la costante, B è il vettore dei coefficienti delle variabili indipendenti, X è il vettore delle variabili indipendenti (in questo caso è un insieme di indici di bilancio e di variabili relative alla relazione impresa-territorio), ed E è l'errore.

Quindi se Y è dicotomica la sua stima dovrà variare tra 0 e 1(Fabbris, 1997); descrivendo la relazione di dipendenza del possesso di un attributo dicotomico da una o più variabili indipendenti (x_1, x_2, … x_n) dove:
Y= dicotomica;
(x_1, x_2, … xn) = dicotomiche, nominali, ordinali, cardinali.

3. Risultati

Con i dati acquisiti dai questionari completati, abbiamo eseguito l'analisi della distribuzione delle risposte attraverso l'ispezione qualitativa degli istogrammi relativi alle risposte del campione e l'analisi dell'asimmetria e curtosi della distribuzione. Entrambe le analisi effettuate hanno dato esito positivo.

Per l'analisi dell'attendibilità complessiva del test per tutte le variabili territoriali analizzate, abbiamo utilizzato all'Alpha di Cronbach: metodologicamente, un valore di Alpha = 0,60 viene considerato come riferimento di un livello accettabile di coerenza interna e di adeguatezza di costrutto del test costruito (Corbetta, 1999). Nell'analisi empirica condotta,

[9] Il principale vantaggio del modello Logit rispetto alla analisi discriminante multivariata risiede nella minore rigidità delle ipotesi sottostanti: l'unica condizione richiesta è infatti l'indipendenza delle variabili esplicative, mentre non risultano necessarie né la normalità della distribuzione delle variabili indipendenti, né l'uniformità delle matrici di varianza e covarianza nei gruppi (Ciampi e Gordini, 2009)

l'Alpha di Cronbach = 0,832 per tutti gli *items* territoriali costruiti e concettualizzati, confermando il rispetto dell'affidabilità del questionario.

Dall'analisi delle frequenze emerge una diversità tra le imprese in salute e le imprese in *default* nel valutare ed apprezzare il territorio di insediamento rispetto alle loro performance: le imprese sane giudicano più attrattivo il territorio rispetto alle imprese in *default*. Interessante è il fatto che nessun intervistato ha giudicato molto elevato il contributo delle istituzioni locali allo sviluppo imprenditoriale nel territorio, nonché l'impatto positivo delle risorse del territorio sulla capacità dell'impresa di controllare i costi. Per quanto riguarda le variabili economico-finanziarie, trattandosi di variabili quantitative, si ritiene utile presentare i valori minimi e massimi, la media e la deviazione standard (Tabella 3.1).

La Tabella 3.2 illustra invece la media e la mediana delle variabili relative al territorio di insediamento.

Tab. 3.1: Min, max, media, deviazione std delle variabili economico-finanziarie

Variabili economico-finanziarie	Minimo	Massimo	Media	Deviazione standard
Roe	- 24.98	4.36	- 0.1703	2.22382
Roi	- 0.76	0.58	0.0261	0.15932
Ros	- 3.53	0.64	- 0.0385	0.38323
Valore aggiunto/Fatturato	-39.20	1.74	- 0.0384	3.35808
Current Ratio	0.03	234.89	3.0119	19.69651
Cash Flow/Totale debiti	- 1.15	1.78	0.0552	0.29036
Cash Flow/Fatturato	- 77.05	0.39	- 0.6021	6.50185
Fatturato/Capitale investito	0.00	3.52	1.0303	0.64239

Fonte: ns elaborazione

Tab. 3.2: Valori medi delle variabili relative al territorio di insediamento

Variabile qualitativa	Media	Mediana
Caratteri tangibili del territorio	2,92	3,00
Articolazione fisica del sistema finanziario	3,41	3,00
Qualità della vita	3,57	4,00
Reputazione	3,34	3,00
Innovazione	2,88	3,00
Internazionalizzazione	2,73	3,00
Competitività del sistema finanziario	2,67	3,00
Sistema delle istituzioni locali	2,40	2,00
Grado di radicamento territoriale	3,37	3,00
Risorse del territorio e immagine aziendale	3,12	3,00
Risorse del territorio e capacità controllo costi	2,67	3,00
Contributo dell'impresa allo sviluppo del territorio	2,99	3,00

Fonte: ns elaborazione

Il primo modello previsionale delle insolvenze di cui abbiamo testato l'efficacia è stato costruito sulla base dei soli indici di bilancio calcolati per l'esercizio 2009, utilizzando la tecnica della regressione logistica. Lo

strumento utilizzato per le elaborazioni dei dati e la costruzione dei modelli è il software statistico SPSS.

Il modello è stato inoltre costruito considerando solamente le variabili significative e rilevanti ovvero quelle economicamente imprescindibili. Per il modello elaborato i coefficienti sono risultati significativi all'1 e 5 per cento e i segni osservati sono risultati coerenti con quelli attesi.

La bontà ed affidabilità del modello sono illustrati nella Tabella 3.3. Il valore di R2 di Nagelkerke sta a significare che il 33% della variabilità della variabile dipendente (*default/non default*) viene spiegata dal modello.

Tab. 3.3: Riepilogo del modello

R-quadrato di Nagelkerke	Test di Hosmer-Lemeshow Sig.
,333	,161

Fonte: ns elaborazione

Il test di bontà dell'adattamento di Hosmer-Lemeshow (una statistica utilizzata specialmente per piccoli campioni), mostra una significatività pari a 0,161 quindi si può ritenere che il modello descrive adeguatamente i dati.

I risultati del modello (Tabella 3.4) dimostrano che lo stesso classifica correttamente il 75.2% delle imprese del campione, con un errore generale del 24.8%. In particolare, i risultati dimostrano che il modello classifica correttamente il 36.4% delle imprese in *default*, con un errore di Tipo I (imprese in default classificare come sane) del 63.6% ed il 92.8% delle imprese sane, con un errore di tipo II (imprese sane classificate erroneamente come in *default*) del 7.2%. La bassa accuratezza previsionale rilevata per le imprese in *default* (36.4%) potrebbe essere giustificata dal minor potere predittivo nelle PI, rispetto alle grandi imprese, degli indici di bilancio, passibili di politiche di bilancio.

Tab. 3.4: Classificazione del campione

Stato osservato	Stato predetto		Imprese classificate correttamente (non correttamente)
	0	1	
0	36.4	63.6	75.2 (24.8)
1	7.2	92.8	

Fonte: ns elaborazione

L'unica variabile significativa è l'indicatore di bilancio Fatturato/Capitale investito cui corrisponde una Sig.= 0.007: significa che ad un aumento dell'indicatore corrisponde un aumento della probabilità di "sanità" delle imprese.

Questo sta inoltre ad indicare che da un lato, l'indice di rotazione sul capitale investito ha un forte potere predittivo, dall'altro lo stato di salute delle imprese dipende molto dal *turnover* degli impieghi.

In linea con l'ipotesi di ricerca, abbiamo testato l'efficacia predittiva di un modello previsionale delle insolvenze utilizzando congiuntamente gli

indici di bilancio e le variabili relative al territorio di insediamento ed alla relazione impresa-territorio.

L'R^2 di Nagelkerke = 0.615, ed il test di Hosmer-Lemeshow= 0.712 confermano la bontà e l'affidabilità del modello.

I risultati del modello dimostrano che lo stesso classifica correttamente l'86.5% delle imprese del campione, con un errore generale del 13.5%. In particolare i risultati dimostrano che il modello classifica correttamente il 72.7% delle imprese in *default*, con un errore di Tipo I (imprese in *default* classificare come sane) del 27.3% ed il 92.8% delle imprese sane, con un errore di tipo II (imprese sane classificate erroneamente come in *default*) del 7.2%. (Tabella 3.5).

Tab. 3.5: Classificazione del campione

Stato osservato	Stato predetto		Imprese classificate correttamente (non correttamente)
	0	1	
0	72.7	27.3	86.5 (13.5)
1	7.2	92.8	

Fonte: ns elaborazione

Le variabili più significative per predire lo stato di salute delle imprese sono: la qualità della vita, l'innovazione, il grado di radicamento territoriale, le risorse del territorio e l'immagine aziendale ed il Fatturato/Capitale investito.

Le variabili significative che hanno una relazione positiva con la variabile dipendente sono: la qualità della vita, il grado di radicamento territoriale ed il Fatturato/Capitale investito.

Al contrario, le variabili significative legate da una relazione di tipo negativo con quella dipendente sono: l'innovazione e le risorse del territorio e immagine aziendale. Ciò significa che l'innovazione e le risorse del territorio e immagine aziendale diminuiscono la probabilità delle imprese di essere sane.

Dal punto di vista economico-finanziario, l'indice significativo è il Fatturato/Capitale investito, mentre Roe, Roi e Flussi di cassa/Totale debiti non sono significativi.

4. Considerazioni finali

Lo scopo della ricerca era verificare se l'utilizzo di variabili qualitative relative al territorio ed alla relazione impresa- territorio consenta di migliorare l'efficacia dei modelli predittivi del *default* delle PMI.

La Tabella 4.1 mostra il grado di accuratezza previsionale fatto rilevare dai modelli previsionali elaborati. Di fatto, l'ipotesi di ricerca è confermata positivamente in quanto il modello previsionale funziona. In linea con l'ipotesi di ricerca, il modello elaborato utilizzando congiuntamente i *ratios* economico-finanziari e le variabili relative al territorio di insediamento (Modello B) consente di ottenere, rispetto al modello elaborato impiegando

i soli *ratios* economico-finanziari (Modello A), un incremento del livello di accuratezza previsionale pari all'11.3%. In particolare, il Modello A classifica correttamente il 75.2% del campione di imprese, mentre il Modello B ne classifica l'86.5%. Scendendo più nel dettaglio, il Modello B individua in maniera migliore le imprese in *default*, ovvero la percentuale corretta delle imprese insolventi identificate dal Modello A sono pari al 36.4%, mentre con il Modello B sono pari al 72.7% con un incremento del 36.3%[10].

Tab. 4.1: Sintesi di accuratezza previsionale dei modelli creati

Modello	Osservato		Stato Previsto		Imprese correttamente classificate (non correttamente)	Incremento di accuratezza previsionale sul Modello A
			0	1		
Modello A	Stato	0	36.4	63.6	75.2 (24.8)	11.3
		1	7.2	92.8		
Modello B	Stato	0	72.7	27.3	86.5 (13.5)	
		1	7.2	92.8		

Fonte: ns elaborazione

Anche dal punto di vista prettamente statistico il Modello B è migliore (Tabella 4.2): il modello B spiega meglio i dati, in quanto i valori dell'R^2 passano da 33.3% per il Modello A al 61.5% per il Modello B.

Ulteriore conferma la si coglie osservando i valori assunti dal -2 log verosimiglianza, poiché diminuiscono dal Modello A al Modello B.

Tab. 4.2: Riepilogo dei due modelli

Modello	-2 log verosimiglianza	R-quadrato di Nagelkerke
A	136.984	.333
B	94.060	.615

Fonte: ns elaborazione

I risultati principali che emergono dal Modello A si possono comunque considerare in linea con gli *standard* di altre ricerche accademiche.

Un importante risultato riguarda il fatto che l'unico indice economico-finanziario con un significativo potere predittivo è Fatturato/Capitale investito da cui si può dedurre che avere un buon ritorno sul capitale investito è sintomo di efficienza e di solidità strutturale per le imprese.

I risultati ottenuti dal Modello B, che considera congiuntamente indicatori di bilancio e variabili relative al territorio di insediamento, sono più che soddisfacenti benché leggermente inferiori allo studio di Ciampi e Gordini (2013c), da cui questa ricerca ha preso spunto (in quel caso l'incremento di accuratezza previsionale sul modello A era pari a 14.5%).

[10] Il dato sulle classificazioni corrette del default nel modello A appare relativamente basso (36.4%): una spiegazione di questo valore basso, considerata la piccola dimensione delle imprese del campione e, quindi, la minore oggettività dei dati di bilancio, potrebbe essere l'adozione da parte del management di politiche di bilancio per migliorare la presentazione dei dati contabili.

Il Modello B mostra che le variabili relative al territorio di insediamento dell'impresa che hanno un maggiore potere predittivo sono il grado di radicamento territoriale, il benessere e la qualità della vita, mentre dal punto di vista economico-finanziario viene riconfermata la valenza dell'indice di rotazione degli impieghi.

La variabile più forte tra le significative è il grado di radicamento territoriale: è facile pensare che di fronte ai pericoli dei cicli economici attuali e agli scossoni economici cui sono sottoposte le imprese, quello che realmente permette loro di sopravvivere e stare in equilibrio è essere connessi e fare rete facendo leva sulle relazioni instaurate con altre imprese e *stakeholders* presenti nel territorio.

In aggiunta, una delle parole chiave per competere in un mercato globalizzato, è l'innovazione sia di prodotto che di processo. Tuttavia nel modello proposto, tale parametro alimenta ambiguità interpretativa, in quanto emerge che questa diminuisce la probabilità delle imprese di essere sane. Da un lato, l'innovazione può essere interpretato come un segnale di rischiosità di una piccola azienda che può portare ad un maggiore assunzione di rischio la quale, in *extrema ratio*, può sfociare nel fallimento. Dall'altro lato, può essere interpretato anche come un carattere non necessariamente negativo (richiamando la teoria della *creative destruction* di Schumpeter[11]) dal momento che le aziende che rimangono in vita sono talmente innovative, come ad esempio la Silicon Valley, da avere un effetto economico talmente importante e dirompente che si ripercuote positivamente su tutto il settore (ad. esempio il caso di successo di Google o Apple).

Inoltre, in questo studio, le imprese indagate sono di piccole dimensioni, tipicamente a carattere familiare e spesso non dispongono dei capitali necessari per mettere in campo processi innovativi. In conclusione, l'innovazione a questa dimensione d'impresa può rappresentare un carattere di fragilità in quanto richiede un maggior investimento che potrebbe esporre l'impresa ad una maggiore probabilità di fallire oppure a migliori prospettive economiche.

In definitiva, la costruzione di modelli di previsione del *default* attraverso l'approccio tradizionale, che studia le variabili economico-finanziarie, pare funzionare, così come l'approccio che considera congiuntamente ratios economico-finanziari e variabili relative al territorio di insediamento.

Ciò nonostante, questa analisi empirica presenta alcuni limiti.

In primo luogo, la dimensione del campione è piuttosto ridotta: occorrerebbe ripetere l'analisi con un campione di imprese più corposo e/o magari espandere il raggio d'indagine alle imprese di dimensioni più elevate oppure alle imprese localizzate in un'area geografica più ampia, come può essere il Centro Italia. Formando un campione più ampio con imprese appartenenti a diversi contesti territoriali si potrebbe apprezzare

[11] La teoria delle innovazioni consente a Schumpeter (2001) di spiegare l'alternarsi, nel ciclo economico, di fasi espansive e recessive le quali non vengono introdotte in misura costante bensì si concentrano in alcuni periodi di tempo. Le fasi di trasformazione sotto la spinta di innovazioni maggiori vengono definite da Schumpeter di "distruzione creatrice", alludendo al drastico processo selettivo che le contraddistingue, nel quale molte aziende spariscono, altre ne nascono, e altre si rafforzano.

meglio l'impatto delle variabili qualitative sulle probabilità d'insolvenza delle imprese.

In secondo luogo, i dati relativi alle variabili territoriali misurate attraverso la scala Likert sono influenzate dalle percezioni soggettive del rispondente. Per questo, potrebbe esserci una possibile distorsione di errata percezione del fenomeno in quanto gli essere umani agiscono in base al *sentiment*, tenendo conto delle proprie prospettive future, dei loro sogni ed ambizioni. Di conseguenza, l'atteggiamento del rispondente potrebbe essere diverso a seconda che si tratti di una impresa in *bonis* o in *default*. Infatti, nell'analizzare il rapporto delle imprese con il territorio, il metodo del questionario potrebbe portare a distorsioni nell'interpretazione dei risultati derivanti dalla natura del soggetto rispondente e per la naturale propensione a considerare, che per le imprese in *default* il rapporto con il territorio sia stato più difficile.

In terzo luogo, la costruzione di modelli di previsione del default per imprese di piccola dimensione è complicato ed i risultati che si possono ottenere potrebbero essere meno precisi rispetto al caso delle grandi imprese (Ciampi e Gordini, 2013).

Questo può essere spiegato da diverse ragioni, alcune delle quali sono:1) il fatto che le piccole imprese hanno meno obblighi legali in materia di informazione contabile rispetto alle imprese di maggiori dimensioni con la conseguenza che vi sono meno informazioni immediatamente disponibili e quelle che possono essere ottenute sono meno accurate; 2) la fisiologia della piccola impresa aumenta le difficoltà dell'analista esterno nell'interpretazione dei dati aziendali; 3) il fatto che nelle piccole imprese, il management ha più ampi margini di discrezionalità per quanto riguarda i dati contabili. Ciò è dovuto da un minor numero di obblighi relativi alla divulgazione dei dati e soprattutto da una pressione più lieve, in termini di responsabilità, da parte degli *stakeholders*. La sua gestione è quindi soggettiva, e ogni indicatore economico-finanziario dipende dalle scelte sulla gestione (indicatori più deboli potrebbero essere dovuti ad un atteggiamento diverso al rischio). Di conseguenza, i dati contabili di una impresa, anche se corretti, non possono sempre rispecchiare tutta la verità sulle modalità di gestione della società stessa. Il risultato è che anche quando i dati contabili sono giuridicamente corretti, chiari e veritieri, si può facilmente fornire un quadro che è più o meno attraente di quanto lo sia un'impresa nella realtà. Tutto ciò comporta che il modello di previsione può essere accurato, ma potrebbe essere inficiato dall'incapacità dei dati contabili di interpretare le scelte di gestione (Vallini *et al.* 2009).

Malgrado questi limiti, l'analisi empirica fornisce alcuni spunti per sviluppi futuri alimentando il dibattito sui modelli di previsione delle insolvenze aziendali. Al fine di comprendere quali siano le variabili significative per la previsione delle insolvenze aziendali si potrebbero considerare la tipologia di crisi affrontata (che sia essa riconducibile a cause interne all'azienda o esterne), le strategie competitive adottate dalle imprese, le competenze del management aziendale, la *governance*, la gestione della conoscenza, nonché l'approfondimento della relazione tra l'impresa e gli istituti finanziari.

Un ulteriore spunto per future ricerche potrebbe derivare dal confronto dei risultati che si ottengono utilizzando tecniche previsionali differenti quali l'analisi discriminante e le reti neurali.

Tra le principali le implicazioni manageriali derivanti dallo studio si segnala la possibilità per il management aziendale e, soprattutto, per i consulenti delle pmi italiane, la disponibilità di un modello di diagnosi dello stato di salute delle imprese in grado di predire con buona affidabilità la capacità di sopravvivenza delle stesse.

In un ottica di controllo strategico, i modelli di previsione delle insolvenze possono fungere, come strumenti di valutazione *ex ante* delle *performance* aziendali e di manifestazione dei primi sintomi di difficoltà.

Infatti, avere una preventiva conoscenza del proprio stato di salute e di quello dei propri clienti potrebbe facilitare le imprese ad avere maggiore consapevolezza della propria solidità e situazione finanziaria incrementando la capacità di accesso al credito nel territorio di riferimento e limitando i diffusi comportamenti orientati al *credit crunch* (Gabbianelli e Gordini, 2015).

Inoltre, il modello proposto si rivela prezioso, offrendo l'opportunità agli istituti finanziari ed intermediari di integrare le variabili relative al territorio ed alla relazione impresa-territorio nell'elaborazione dei propri modelli di *credit rating*.

Bibliografia

ACS Z.J., ANSELIN L., VARGA A. (2002), "Patents and Innovation Counts as Measures of Regional Production of New Knowledge", *Research Policy*, vol. 31, n. 7, pp. 1069-1085.

AHUJA G. (2000), "Collaboration Networks, Structural Holes, and Innovation: a Longitudinal Study", *Administrative Science Quarterly*, vol. 45, n. 3, pp. 425-455.

ALESSANDRINI P., PRESBITERO A.F., ZAZZARO A. (2006), *Banks, Distances and Financing Constraints for Firms*, Quaderni di Discussione, Università Politecnica delle Marche.

ALESSANDRINI P., PRESBITERO A.F., ZAZZARO A. (2007), *Bank Size or Distance: What Hampers Innovation Adoption by SMEs?*, Università Politecnica delle Marche - Quaderni di Discussione.

ALTMAN E.I. (1968), "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy", *The Journal of Finance*, vol. 23, n. 4, pp. 589-609.

ALTMAN E.I. (1993), *Corporate Financial Distress and Bankruptcy (2nd ed.),* Wiley, New York.

ALTMAN E.I., DANOVI A., FALINI A. (2013), "La Previsione dell'Insolvenza: l'Applicazione dello Z Score alle Imprese in Amministrazione Straordinaria", *Bancaria*, 4/2013.

ALTMAN E. I., HALDEMAN R., NARAYANAN P. (1977), "Zeta Analysis", *Journal of Banking and Finance*, vol. 1, n. 1, pp. 29-54.

ALTMAN E.I., MARCO G., VARETTO F. (1994), "Corporate Distress Diagnosis: Comparisons Using Linear Discriminant Analysis and Neural Networks (the Italian Experience)," *Journal of Banking and Finance*, vol. 18, n. 3, pp. 505-529.

ALTMAN E.I., SABATO G. (2007), "Modeling Credit Risk for SMEs: Evidence from the US Market", *Abacus*, vol. 43, n. 2, pp. 332-357.

ALTMAN E.I., SABATO G., WILSON N. (2011), "The Value of Non-Financial Information in Small and Medium-Sized Enterprise Risk Management", *The Journal of Credit Risk*, vol. 6, n. 2, pp. 95-127.

ALTMAN E.I., SAUNDERS A. (1996), "Credit Risk Measurement: Development over the Last 20 Years", *Working Paper Series,* New York University, New York, pp. 1-38.

ASHEIM B., COENEN L. (2005), "Knowledge Bases and Regional Innovation Systems: Comparing Nordic Clusters", *Research Policy*, vol. 34, n. 8, pp. 1173-1190.

ASHEIM B.T., GERTLER M.S. (2005), "The Geography of Innovation: Regional Innovation Systems", in Fagerberg J., Mowery D., Nelson R., (eds.), *The Oxford Handbook of Innovation*, Oxford University Press, Oxford.

ASHEIM B., ISAKSEN A. (2002), "Regional Innovation Systems: The Integration of Local 'Sticky' and Global 'Ubiquitous' Knowledge", *The Journal of Technology Transfer*, vol. 27, n. 1, pp. 77-86.

BACCARANI C., GOLINELLI G.M. (2011), "Per una rivisitazione delle relazioni tra impresa e territorio", *Sinergie*, n. 84, pp. VII-XIII.

BAFFIGI A., PAGNINI M., QUINTILIANI F. (2000), "Localismo bancario e distretti industriali: assetto dei mercati del credito e finanziamento degli investimenti", in Signorini F.L. (a cura di), *Lo sviluppo locale*, Donzelli, Roma.

BARNES P. (1982), "Methodological Implications of Non-Normality Distributed Financial Ratios", *Journal of Business Finance and Accounting*, vol. 9, n. 1, pp. 51-62.

BECATTINI G. (1990), "The Marshallian Industrial District as a Socio-Economic Notion", in Pyke F., Becattini G., Sengenberger W., (a cura di), *Industrial Districts and Inter-firm Co-operation in Italy*, ILO, Ginevra.

BEHR P., GÜTTLER A. (2007), "Credit Risk Assessment and Relationship Lending: An Empirical Analysis of German Small and Medium-Sized Enterprises", *Journal of Small Business Management*, vol. 45, n. 2, pp. 194-213.

BELLANDI M. (2009), "External Economies, Specific Public Goods and Policies", in Becattini G., Bellandi M., De Propris L., (eds), *A handbook of industrial districts*, Edward Elgar, Cheltenham.

BELLOVARY J., GIACOMINO D., AKERS M. (2007), "A Review of Bankruptcy Prediction Studies:1930-Present", *Journal of Financial Education*, vol. 33, (Winter 2007), pp. 1-42.

BELUSSI F., GOTTARDI G., RULLANI E. (2003), *The Technological Evolution of Industrial Districts*, Kluwer, Boston.

BELUSSI F., PILOTTI L. (2008), "Creazione, produzione, trasferimento di conoscenze nei SPL tra tacitness e codified knowledge in una prospettiva ecologica del valore", in Centazzo R., Pasini F., (a cura di), *I sistemi produttivi locali: evidenze empiriche e politiche di sviluppo*, Franco Angeli, Milano.

BLANCO A., IRIMIA A., OLIVER M. D. (2012), "The Prediction of Bankruptcy of Small Firms in the UK using Logistic Regression", *Análisis Financiero*, vol. 118, pp. 32-40.

BLUM M.P. (1974). "Failing Company Discriminant Analysis", *Journal of Accounting Research*, vol. 12, n. 1, pp. 1-25.

BORTOLUZZI G., TRACOGNA A. (2011), "Processi di Innovazione e Fattori di Competitività nei Cluster Internazionali della Nautica", *Sinergie*, n. 84, pp. 89-118.

BOSCHMA R. (2005). "Proximity and Innovation: A Critical Assessment", *Regional Studies,* vol. 39, n. 1, pp. 61-74.

BOTTANI P., CIPRIANI L., SERAO F. (2004), "Il Modello di Analisi Z-Score Applicato alle PMI", *Amministrazione e Finanza*, vol. 19, n. 1, pp. 50-53.

BOTTINELLI L., PAVIONE E. (2010), *Distretti Industriali e Cluster Tecnologici: Strategie Emergenti di Valorizzazione della Ricerca e dell'innovazione,* Giuffrè, Milano.

BOZEMAN B. (2000). "Technology Transfer and Public Policy: A Review of Research and Theory", *Research Policy,* vol. 29, n. 4-5, pp. 627-655.

BRABAZON A., KEENAN P. B. (2004), "A Hybrid Genetic Model for the Prediction of Corporate Failure", *Computational Management Science*, vol. 1, n. 3, pp. 293-310.

BRADY K.O. (2002), "Corporate Reputation and Sustainability: Creating Value by Unifying Two Disciplines", *Ethical Corporation Magazine*, n. 9, pp. 26-27.

BRUSCO S. (1982), "The Emilian Model: productive Decentralisation and Social Integration", *Cambridge Journal of Economics*, vol. 6, n. 2, pp. 167-184.

BRYMAN A. (1988), *Quantity and Quality in Social Research*, Unwin Hyman, London.

BUESA M., HEIJS J., BAUMERT T. (2010), "The Determinants of Regional Innovation in Europe: A Combined Factorial and Regression Knowledge Production Function Approach", *Research Policy*, vol. 39, n. 6, pp. 722-735.

CAIROLI M.G. (2011), *Il marketing territoriale. Strategie per la competitività sostenibile del TERRITORIO*, Franco Angeli, Milano.

CAMUFFO A., GRANDINETTI R. (2006), "I distretti industriali come sistemi locali di innovazione", *Sinergie*, n. 69, pp. 33-60.

CARNÀ R., GIANNINI A. (2007), "Un'applicazione del Modello di Altman alle Aziende Farmaceutiche", *Rivista Italiana di Ragioneria e di Economia Aziendale*, vol. 107, n. 9/10, pp. 535-553.

CERVED GROUP (2014), *Osservatorio su fallimenti, procedure e chiusure di imprese*, Dicembre 2014.

CHIAVERSIO M., MICELLI S. (2007), "Oltre il distretto come sistema: le strategie delle imprese fra locale e globale", in Guelpa F., Miceli S., *I distretti industriali del terzo millennio*, Il Mulino, Bologna.

CIAMPI F. (2015), "Corporate Governance Characteristics and Default Prediction Modeling for Small Enterprises. An Empirical Analysis of Italian Firms", *Journal of Business Research*, vol. 68, n. 5, pp. 1012-1025.

CIAMPI F., GORDINI N. (2009), "Default Prediction Modeling for Small Enterprises: Evidence from Small Manufacturing Firms in Northern and Central Italy", *Oxford Journal*, vol. 8, n. 1, pp. 13-29.

CIAMPI F., GORDINI N. (2012), "Managerial Characteristics and Default Prediction Modeling for Small Firms: Evidence from Small Italian Firms", *Atti del XXXV Convegno Annuale AIDEA*, Salerno.

CIAMPI F., GORDINI N. (2013 a), "Small Enterprise Default Prediction Modeling through Artificial Neural Networks: An Empirical Analysis of Italian Small Enterprises", *Journal of Small Business Management*, vol. 51, n. 1, pp. 23-45.

CIAMPI F., GORDINI N. (2013 b), "The Potential of Corporate Governance Variables for Small Enterprise Default Prediction Modelling. Statistical Evidence from Italian Manufacturing Firms. Preliminary Findings", *Proceedings of the 2013 Cambridge Business & Economics Conference*, 2-3 July, Cambridge, UK.

CIAMPI F., GORDINI N. (2013c), "Relazione Impresa-Territorio e Modelli Predittivi del Default d'Impresa. Primi Risultati di una Analisi Statistica sulle Piccole Imprese Italiane," *Sinergie*, n. 90, pp. 51-76.

COOKE P. (2001), "Regional Innovation Systems, Clusters and the Knowledge Economy", *Industrial and Corporate Change*, vol. 10, n. 4, pp. 945-973.

COOKE P., MORGAN K. (1998), *The Associational Economy: Firms, Regions and Innovation*, Oxford University Press, Oxford.

COOKE P., URANGA M.G., ETXEBARRIA G. (1997), "Regional Innovation Systems: Institutional and Organizational Dimensions", *Research Policy*, vol. 26, n. 4-5, pp. 475-491.

CORBETTA P. (1999), *Metodologia e Tecniche della Ricerca Aziendale*, Il Mulino, Bologna.

CORÒ G., MICELLI S. (2006), *I Nuovi Distretti produttivi. Innovazione, internazionalizzazione e competitività dei territor*i, Marsilio, Venezia.

CROUHY M., GALAI D., MARK R. (2001), "Prototype Risk Rating System", *Journal of Banking and Finance*, vol. 25, n. 1, pp. 47-95.

DAGNINO G.B., D'ALLURA G.M., FARACI R., PISANO V. (2011), "La Localizzazione Dei Processi Innovativi Ad Alto Contenuto Tecnologico: il ruolo delle imprese "àncora" fra sistemi locali e network globali", *Sinergie*, n. 84, pp. 179-207.

DEAKIN E.B. (1972), "A Discriminant Analysis of Predictors of Business Failure", *Journal of Accounting Research*, vol. 10, n. 1, pp. 167-180.

DENICOLAI S., CIOCCARELLI G., ZUCCHELLA A. (2010), "Reputation, Trust and Relational Centrality in Local Networks: An Evolutionary Geography Perspective", in Boschma R., Martin R., (eds), *Handbook on evolutionary economic geography*, Edward Elgar, UK.

DOLOREUX D., PARTO S. (2005), "Regional Innovation Systems: Current Discourse and Unresolved Issues", *Technology in Society*, vol. 27, n. 2, pp. 133-153.

EDMISTER R. (1972), "An Empirical Test of Financial Ratio Analysis for Small Business Failure Prediction", *Journal of Financial and Quantitative Analysis*, vol. 7, n. 2, pp. 1477-1493.

ELY J., VALIMAKI J. (2002), "Bad Reputation", *NAJ Economics*, vol. 4, n. 5, pp. 1-24.

ESPAHBODI H., ESPAHBODI P., PEEK G. (1998), "Classification Procedures and Prediction of Failure/Distress", *Advances in Financial Planning and Forecasting*, 8, Jai Press, NY.

FABBRIS L. (1997), *Statistica Multivariata. Analisi Esplorativa dei Dati*, McGraw-Hill, Milano.

FATTORE G. (2005), *Metodi di Ricerca in Economia Aziendale*, EGEA, Milano.

FERGUSON T.D., DEEPHOUSE D.L., FERGUSON W.L. (2000), "Do Strategic Groups Differ in Reputation?", *Strategic Management Journal*, vol. 21, n. 12, pp. 1195-1214.

FORMISANO V., RUSSO G. (2012), "Il Ruolo degli Intangibles nei Modelli di Rating", *Sinergie Rapporti di Ricerca*, n. 36, Novembre, pp. 361-432.

GABBIANELLI L. (2013). "I modelli di gestione anticipata delle crisi: la previsione delle insolvenze," in Pencarelli T., *Le crisi d'impresa. Diagnosi, previsione e procedure di risanamento*, Franco Angeli, Milano.

GABBIANELLI L., GORDINI N. (2015), "Modelli Predittivi del Default di Impresa e Radicamento Territoriale. Evidenze da un Campione di Piccole e Medie Imprese Marchigiane", *Conference Proceedings del 4° Workshop - I Processi Innovativi nelle Piccole Imprese: Re-Positioning of SMEs in the Global Value System,* Università degli Studi di Urbino, Urbino, 24-25 Settembre 2015.

GERINGER J.M., TALLMAN S., OLSEN D. M. (2000), "Product and International Diversification among Japanese Multinational Firms", *Strategic Management Journal*, vol. 21, n. 1, pp. 51-80.

GIARDINO R., GRASSO A., PATTARIN F. (2010). "Rischio di Insolvenza e Congiuntura Economica nell'industria della Provincia di Modena," in Bisoni C., *Finanza e Credito per le Imprese del Territorio*, Il Mulino, Bologna.

GIBILARO L., PIATTI D. (2012), "Il Ruolo delle Variabili Hard Finanziarie e non Finanziarie nella Business Failure Prediction", *Sinergie Rapporti di Ricerca*, n. 36, Novembre, pp. 135-184.

GOLINELLI C.M. (2002), *Il territorio sistema vitale. Verso un modello di analisi*, Giappichelli, Torino.

GOLINELLI G.M. (2012), Presentazione, in "Il rating tra impresa, banca e territorio", *Sinergie Rapporto di Ricerca*, n. 36, Novembre, pp. 7-9.

GORDINI N. (2014), "A Genetic Algorithm Approach for Smes Bankruptcy Prediction: empirical Evidence from Italy", *Expert Systems with Applications*, vol. 41, n. 14, pp. 6433-6445.

HUNDLEY G., JACOBSON C. (1998), "The Effects of Keiretsu on Export Performance of Japanese Companies: Help or Hindrance?", *Strategic Management Journal*, vol. 19, n. 10, pp. 927-937.

JIMENEZ G., SALAS V., SAURINA J. (2009), "Organizational Distance and Use of Collateral For Business Loans", *Journal of Banking and Finance*, vol. 33, n. 2, pp. 234-243.

JUDGE G.G., HILL R.C., GRIFFITHS W.E., LUTKEPOHL H., LEE T. (1987), *Theory and practice of econometrics*, Second edition, Wiley, New York.

KARELS G.V., PRAKASH A.J. (1987), "Multivariate Normality and Forecasting of Business Bankruptcy", *Journal of Business Finance and Accounting*, vol. 14, n. 4, pp. 573-593.

KRUGMAN P. (1991), *Geography and Trade*, MIT Press, Cambridge.

KRUGMAN P. (1995), *Development, Geography and Economic Theory*, MIT Press Cambridge.

LIBERTI J.M., MIAN A. (2009), *Estimating the Effect of Hierarchies on Information Use, Review of Financial Studies*, vol. 22, n. 10, pp. 4057-4090.

LUGARESI S., ROTONDI Z. (2007), "Internazionalizzazione e finanziamento dei distretti industriali", *Economia Italiana*, n. 1, pp. 105-125.

LUSSIER R. (1995), "A Non Financial Business Success versus Failure Prediction Model for Young Firms", *Journal of Small Business Management*, vol. 33, n. 1, pp. 8-20.

MELE R. (2011), "Enti locali e valorizzazione dell'imprenditorialità innovative", *Sinergie*, n. 84, pp. 119-122.

MICELLI S., CHIARVESIO M. (2003), "Processi di internazionalizzazione e strategie delle imprese distrettuali tra delocalizzazione e innovazione", *Conferenza ICE: Internazionalizzazione e frammentazione della produzione dei distretti industriali*, Roma.

MODINA M., PIETROVITO F. (2014), "A Default Prediction Model for Italian Smes: the Relevance of the Capital Structure", *Applied Financial Economics*, vol. 24, n. 23, pp. 1537-1554.

MONTGOMERY D.C., PECK E.A. (1992), *Introduction to linear regression analysis*, Wiley, New York.

MUSTILLI M., CAMPANELLA F., SORRENTINO F. (2011), "La valutazione delle performance innovative dei sistemi locali di innovazione: il caso dell'aerospazio e dei nuovi materiali in Campania", *Sinergie*, n. 84, pp. 209-229.

NOOTEBOOM B. (2002), *Trust: Forms, Foundations, Functions, Failures and Figures*, Edward Elgar, Cheltenham, UK and Northampton, MA, USA.

OHLSON J.A. (1980), "Financial Ratios and the Probabilistic Prediction of Bankruptcy", *Journal of Accounting Research*, vol. 18, n. 1, pp. 109-131.

PENCARELLI T. (2010), *Marketing e management del turismo*, Edizioni Goliardiche, Trieste.

PENCARELLI T. (2013), *Le crisi d'impresa. Diagnosi, previsione e procedure di risanamento*, Franco Angeli, Milano.

PICCOLO D. (1998), *Statistica*, Il Mulino, Bologna.

PINDALO J., RODRIGUEZ L. F. (2004), "Parsimonious Models of Financial Insolvency in Small Companies", *Small Business Economics*, n. 22, pp. 51-66.

PIORE M., SABEL C. (1984), *The Second Industrial Divide: Possibilities for Prosperity,* Basic books, New York.

PORTER M.E. (1998), "Clusters and the New Economics in Competition", *Harvard Business Revie*w, vol. 76, n. 6, pp. 77-90.

PUTNAM R. (1993), "The Prosperous Community: Social Capital and Public Life", *American Prospect*, vol. 4, n. 13, pp. 35-42.

QUADRIO CURZIO A., FORTIS M. (2002), *Complessità e distretti industriali. Dinamiche, modelli, casi reali*, Il Mulino, Bologna.

ROBERTSON P.L., JACOBSON D., LANGLOIS R.N. (2009), "Innovation Processes and Industrial Districts", in Becattini G., Bellandi M., De Propris L., (eds), *A Handbook of Industrial Districts*, Edward Elgar, Cheltenham.

ROTONDI Z. (2005), "Banche, finanziamento dello sviluppo e dell'innovazione e internazionalizzazione", in Bracchi G., Masciandaro D. (a cura di), *Decimo Rapporto SFI. Le banche Italiane e la finanza per lo sviluppo: territori, imprese e famiglie*, Edibank-Bancaria Editrice, Milano.

RULLANI E. (2003), "I distretti industriali al tempo dell'economia globale", *Impresa e Stato*, n. 63-64, pp. 80-83.

RULLANI E. (2006), "L'internazionalizzazione invisibile. La nuova geografia dei distretti e delle filiere produttive", *Sinergie*, n. 69, pp. 3-32.

SANTONI S., ZANNI L. (2011), "Comportamenti di ricerca e innovazione nei distretti industriali: gli attori del cambiamento e l'accesso a "conoscenze distanti", *Sinergie*, n. 84, pp. 231-256.

SCHUMPETER J. A. (2001), *Capitalismo, socialismo e democrazia*, ETAS, Milano.

TODTLING F., TRIPPL M. (2005), "One Size Fits All? Towards a Differentiated Regional Innovation Policy Approach", *Research Policy*, vol. 34, n. 8, pp. 1203-1219.

UGHETTO E. (2006), "Territorial Proximity and Credit Constraints to Innovation: Evidence from Italian Firms", in Bracchi G., Masciandaro D., (a cura di), *Undicesimo Rapporto SFI. Banche e geografia: nuove mappe produttive e metamorfosi del credito*, Edibank-Bancaria Editrice, Milano.

VALLINI C., CIAMPI F., GORDINI N. (2009), "Using Artificial Networks Analysis for Small Entreprise Default Prediction Modeling: Statistical Evidence from Italian Firms", *2009 Oxford Business and Economics Conference Proceeding, Association for Business and Economics Research (ABER)*, pp. 1-26.

VALLINI C., CIAMPI F., GORDINI N., BENVENUTI M. (2008), "Can Credit Scoring Models Effectively Predict Small Enterprise Default? Statistical Evidence from Italian Firms", *Proceeding Of The 8th Global Conference on Business and Economics, Association for Business and Economics Research (ABER)*, pp. 1-23.

VALLINI C., CIAMPI F., GORDINI N., BENVENUTI M. (2009), "Are Credit Scoring Models Able to Predict Small Enterprise Default? Statistical Evidence from Italian Firms", *International Journal of Business and Economics*, vol. 8, n. 1, pp. 3-18.

VARALDO R. (2006), "Il nuovo modello competitivo aziendale dei distretti industriali", *Economia e Politica Industriale*, n. 1, pp. 25-42.

VELO D. (2011), "La varietà dei sistemi locali per l'innovazione emergente in Europa", *Sinergie*, n. 84, pp. 5-20.

YAP B.C., YONG D.G., POON W. (2010), "How Well Do Financial Ratios And Multiple Discriminant Analysis Predict Company Failures In Malaysia", *International Research Journal of Finance and Economics*, vol. 54, n. 13, pp. 166-175.

Appendice: Questionario somministrato alle imprese

DATI ANAGRAFICI DELL'AZIENDA

1. Denominazione Azienda
2. Provincia di appartenenza
   - PU
   - MC
   - AN
   - FM
   - AP
3. Fatturato 2009
   - 0 – 500.000
   - 500.000 – 1.000.000
   - 1.000.000 – 2.500.000
   - 2.500.000 – 5.000.000
   - oltre 5.000.000
4. Numero Addetti 2009
5. Settore di Attività economica
   - Industria
   - Costruzioni
   - Servizi
6. Ruolo dell'intervistato
7. Sesso dell'intervistato
   - Maschio
   - Femmina

CARATTERI RELATIVI AL TERRITORIO

Assegnare un punteggio da 1 (nullo) a 5 (molto elevato) alle seguenti variabili relative ai caratteri del territorio di insediamento dell'impresa:

8. Caratteri tangibili del territorio (quali posizione geografica, assetto morfologico, disponibilità di infrastrutture, risorse naturali, articolazione delle attività produttive svolte localmente)

	1	2	3	4	5	
Nullo	☐	☐	☐	☐	☐	molto elevato

9. Grado di attrattività del territorio in termini di competitività del sistema finanziario locale

	1	2	3	4	5	
nullo	☐	☐	☐	☐	☐	molto elevato

10. Grado di attrattività del territorio in termini di presenza e diffusione spaziale di istituti bancari ed altre istituzioni finanziarie

	1	2	3	4	5	
nullo	☐	☐	☐	☐	☐	molto elevato

11. Il contesto territoriale favorisce/limita i processi di internazionalizzazione

	1	2	3	4	5	
limita	☐	☐	☐	☐	☐	favorisce

12. Grado di attrattività del territorio in termini di reputazione

	1	2	3	4	5	
nullo	☐	☐	☐	☐	☐	molto elevato

13. Il contesto territoriale favorisce/limita i processi di innovazione

	1	2	3	4	5	
limita	☐	☐	☐	☐	☐	favorisce

14. Grado di attrattività del territorio in termini di benessere e qualità della vita

	1	2	3	4	5	
Nullo	☐	☐	☐	☐	☐	Molto elevato

15. Contributo dell'impresa allo sviluppo economico, sociale e/o culturale del territorio

	1	2	3	4	5	
Negativo	☐	☐	☐	☐	☐	Positivo

16. Grado di radicamento dell'impresa sul territorio

	1	2	3	4	5	
Negativo	☐	☐	☐	☐	☐	Positivo

17. Impatto delle risorse del territorio sulle capacità di controllo dei costi

	1	2	3	4	5	
Negativo	☐	☐	☐	☐	☐	Positivo

18. Impatto delle risorse del territorio sull'immagine aziendale

	1	2	3	4	5	
Negativo	☐	☐	☐	☐	☐	Positivo

19. Contributo delle Istituzioni Locali (enti locali, università, centri di ricerca, associazioni di categoria, ecc) allo sviluppo imprenditoriale del territorio

	1	2	3	4	5	
Nullo	☐	☐	☐	☐	☐	Molto elevato

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CUEIM

Analisi delle motivazioni alla base del turismo matrimoniale: un'indagine esplorativa[1]

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Abstract

***Obiettivi del paper**: L'articolo analizza le motivazioni che guidano la scelta di celebrare un matrimonio in un luogo diverso da quello di residenza (destination wedding), alimentando, per tale via, rilevanti flussi turistici nelle destinazioni dell'evento.*

***Metodologia**: Lo studio ha natura esplorativa e adotta un approccio di tipo qualitativo. Esso si basa su 38 interviste realizzate inviando via email un questionario semistrutturato a coppie che hanno celebrato un destination wedding; la raccolta dati è stata completata secondo le logiche della triangolazione degli stessi.*

***Risultati**: I risultati evidenziano che le motivazioni che guidano la scelta di celebrare un destination wedding sono ascrivibili a dimensioni funzionali, sociali, emozionali e altruistiche; per tale via, essi suggeriscono l'appropriatezza che l'approccio del valore esperienziale e del consumer value può avere nell'interpretare la scelta delle coppie.*

***Limiti e implicazioni pratiche**: Il fatto che lo studio sia qualitativo e abbia carattere esplorativo non consente la generalizzazione dei risultati. Inoltre, il fatto che i dati siano stati raccolti via email può aver generato un bias nella fase interpretativa. A ciò si è cercato di ovviare con la triangolazione. A livello manageriale, lo studio fornisce utili informazioni a tutti gli operatori interessati a programmare strategie e politiche di marketing capaci di aumentare la dimensione del mercato.*

***Originalità dello paper**: Nonostante il limite della non generalizzabilità dei risultati, questo studio arricchisce il dibattito in materia di wedding-based tourism e fornisce informazioni utili per sviluppare item e scale su cui basare futuri studi quantitativi.*

Parole chiave: turismo matrimoniale; motivazioni; valore; approccio esperienziale

***Purpose of the paper**: This study focuses on wedding-based tourism, which refers to tourist flows generated by weddings celebrated in a destination where neither the bride nor the groom reside. Specifically, this paper aims at shedding light on the motivations that drive couples to celebrate their wedding outside their hometown.*

[1] Un sentito ringraziamento va in primo luogo ai referee per i preziosi commenti forniti, questi hanno consentito di migliorare sensibilmente la qualità dell'articolo. Gli autori ringraziano altresì tutti i partner di ricerca che hanno offerto un fondamentale contributo per la raccolta dei dati utilizzati nello studio. In ordine sparso: Sposa Mediterranea, Ravello (Sa); Sposami a Verona, Comune di Verona; Viaggi di Nozze Network, Milano; Zenzero Italia, Sorrento (Na); Chicchi d'Arancio, Salerno; Cartoline dal Mondo, Milano; PragueWeddings, Praga.

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***Methodology**: The study is exploratory and mainly based on a qualitative approach. A semi-structured interview protocol was sent via email to 38 couples who opted for a destination wedding; data was then triangulated managing interviews with experts in the sector.*

***Findings**: Findings suggest that the couples' decision making is mainly driven by functional, social, emotional and altruistic motivations, thus suggesting the appropriateness of the experiential approach in interpreting the phenomenon based on a demand-side perspective.*

***Research limits and practical implications**: The study is qualitative and exploratory in nature; hence, findings cannot be generalized. Further the fact that the interviews were managed via email could have introduced some biases in the interpretation of data. Despite this, the research provides useful information for destination marketers and policymakers attempting to plan and implement marketing strategies aimed at expanding the size of the market.*

***Originality of the paper**: This study contributes to the growing scientific debate related to wedding-based tourism and provides researchers useful information that can be used to contribute to the development of items and scale to be used to carry out a quantitative study.*

Key words: wedding-based tourism; motivations; consumer value; experiential approach

1. Introduzione

Negli ultimi decenni, in letteratura è cresciuto l'interesse verso gli eventi come attrattori di flussi turistici (Bartolazzi *et al.*, 2008; Bowdin *et al.*, 2006; Ferrari, 2002; Fortezza, 2010; Getz, 2008). Recentemente l'attenzione di alcuni studiosi è stata posta su un fenomeno nuovo e promettente, ovvero quello dei matrimoni celebrati in luoghi diversi da quello di abituale residenza di uno o entrambi gli sposi; eventi che possiamo ricomprendere nella categoria degli eventi privati, di natura civile o religiosa (Goldbatt, 2002).

Il turismo matrimoniale (Arosio, 2010), noto anche come *wedding-based tourism* (Daniels e Loveless, 2007; Schumann e Amado, 2010), sta decollando a livello internazionale e molte destinazioni si stanno posizionando come "mete perfette" per questo tipo di mercato, anche in virtù della possibilità di ospitare, in un unico "evento complessivo" matrimonio e luna di miele (Del Chiappa e Fortezza, 2015; Fortezza e Del Chiappa, 2012). Si pensi, ad esempio, a Las Vegas, che è una delle destinazioni di turismo matrimoniale più scelte al mondo, assieme alle Hawaii, ai Caraibi, al Messico, alle Isole Fiji, alla Jamaica, a St. Lucia, alle Isole Vergini e all'Europa (Daniels e Loveless, 2007). Fra queste mete, sta crescendo la Nuova Zelanda (*Wedding tourism*: 1980-2009, Vital Articles, Statistics New Zealand), che sembra puntare su coloro che desiderano vivere l'esperienza matrimoniale nell'intimità della coppia (molte le coppie omosessuali) e in modo autentico (Cloke e Perkins, 1998). In forte ascesa è anche il Sudafrica, altra meta che attrae molti matrimoni omosessuali (World Tourism Organization, 2012). Anche New York si sta proponendo

come destinazione matrimoniale e, allo scopo, ha dato vita a un apposito club di prodotto e ha creato il brand "NYC I DO".

Quanto all'Italia, si tratta di una delle mete di maggior *appeal* a livello internazionale e con le maggiori potenzialità di crescita in questo specifico mercato. Secondo JFC (2012), nel 2012 ben 6.180 matrimoni di coppie straniere sono stati celebrati in Italia, generando 1,221 milioni di presenze e un fatturato totale di 315 milioni di euro. Tra le principali destinazioni matrimoniali italiane troviamo Verona e Venezia, poi Firenze, Roma, Costiera Amalfitana e Capri.

Da sempre l'Italia è stata a livello internazionale una delle mete più ambite per i viaggi di nozze; la crescita del turismo matrimoniale, per i motivi che analizzeremo di seguito, apre un altro interessante spazio di opportunità per le nostre destinazioni più rinomate e anche per quelle emergenti. Sono molte, infatti, le amministrazioni locali che si stanno interessando a questo possibile fattore di catalizzazione di flussi turistici a elevato valore aggiunto (potenziale). Si pensi, ad esempio, a Verona, Firenze, Venezia e Palermo, tutte città che hanno messo a punto specifiche politiche di prodotto e di comunicazione (più o meno sofisticate) per soddisfare in modo specifico le esigenze di questo segmento. Da questo punto di vista, la sfida delle destinazioni è di far emergere e curare al meglio dei *network* (di valore) che a vario titolo ruotano attorno all'"esperienza matrimoniale" e promuovere iniziative di supporto e qualificazione dell'immagine delle destinazioni come "mete matrimoniali perfette" (Del Chiappa e Fortezza, 2015).

Nonostante la rilevante crescita che il turismo matrimoniale sta registrando a livello internazionale, e nonostante l'importanza dell'indotto economico che esso genera, il fenomeno del *wedding-based tourism* ha ricevuto scarsa attenzione in ambito accademico; più numerosi risultano i contributi che analizzano il processo decisionale e il posizionamento delle destinazioni di viaggi di nozze (Jang *et al.*, 2007; Kim e Agrusa, 2005; Lee *et al.*, 2010). Di conseguenza, appare auspicabile approfondire il dibattito attorno al tema del *wedding-based tourism*, adottando tanto la prospettiva dell'offerta (es: Del Chiappa e Fortezza, 2015) quanto quella della domanda (es: Del Chiappa e Fortezza, 2014). Il presente contributo vuole approfondire la prospettiva della domanda. Nello specifico, esso si pone l'obiettivo di analizzare le motivazioni che guidano la scelta di celebrare un *destination wedding*. Lo studio ha natura esplorativa e si basa su un'indagine di tipo qualitativo, realizzata mediante 38 interviste a coppie di sposi italiane e straniere. I suoi risultati consentiranno, da un lato, di arricchire il dibattito scientifico in materia di motivazioni che orientano i comportamenti dei turisti e, dall'altro, di mettere a disposizione degli operatori utili informazioni per formulare efficaci strategie e politiche di marketing (Ellis *et al.*, 2014) finalizzate alla crescita di questo mercato.

2. Inquadramento teorico

Il *wedding-based tourism* è rappresentato dai flussi turistici che si generano in virtù della partecipazione a matrimoni celebrati in luoghi diversi da quello di abituale residenza di uno o entrambi gli sposi (Daniels e

Loveless, 2007; Fortezza e Del Chiappa, 2012; Schumann and Amado, 2010). Una prospettiva più ampia richiederebbe di considerare anche i flussi di visitatori che si generano per effetto della partecipazione a un matrimonio che viene celebrato in una località che rappresenta per entrambi gli sposi il proprio luogo di residenza (Del Chiappa, 2016). Tuttavia, ai fini del presente studio assumeremo la definizione più ristretta di *wedding-based tourism*, considerando i casi in cui la destinazione matrimoniale sia diversa dalla dimora abituale di entrambi gli sposi, perché riteniamo che questa fattispecie offra maggiori spunti per analizzare in profondità il fenomeno e le sue possibili implicazioni.

Un *destination wedding*, come ogni altro prodotto turistico, può considerarsi un prodotto esperienziale (Goldsmith e Tsiotsou, 2012; Pencarelli e Forlani, 2002). In questo quadro, sono diversi i modi per definire e interpretare la natura, lo scopo e le motivazioni che spingono un individuo a voler vivere una certa esperienza turistica (Gallarza e Gil, 2008; Laing *et al.*, 2014). Nello specifico, la motivazione può definirsi come "la spinta in base alla quale il consumatore, riconosciuto un bisogno non adeguatamente soddisfatto, si comporta in modo da soddisfarlo" (Dalli e Romani, 2003, p. 145). In altri termini, le motivazioni possono essere concepite come i fattori guida che spingono le persone ad adottare specifici comportamenti (Rheinberg, 1995); in quanto tali, la loro comprensione può ottimizzare strategie, politiche e processi di marketing (Correia *et al.*, 2007). Come appena rilevato, le motivazioni attivano e guidano il comportamento verso la ricerca di un'esperienza capace di generare valore per il consumatore-turista che la vive. Facendo riferimento allo studio pionieristico di Holbrook e Hirschman (1982), e richiamando contributi simili successivi (Gallarza *et al.*, 2011; Holbrook, 1999; Woodward e Holbrook, 2013), il valore per il consumatore appare come un costrutto di tipo cognitivo e affettivo, in virtù del quale le scelte di consumo risultano guidate non solo da considerazioni oggettive e razionali, ma anche soggettive, emozionali, simboliche. In base a tale impostazione, i comportamenti del consumatore sarebbero attivati e guidati dalla volontà di ricercare quattro principali dimensioni di valore: funzionale, sociale, emozionale e altruistica (Gallarza *et al.*, 2011). Applicato al turismo, questo potrebbe significare, nell'ordine: ricerca di risparmi di costo o di particolari benefici dalla vacanza (ad esempio, benefici di salute, nel caso del turismo termale o medico); ricerca di legami e occasioni di socializzazione (si pensi a chi decide di viaggiare con un format come quello offerto da "Avventure nel Mondo"), ricerca di particolari esperienze ed emozioni (più autentiche o adrenaliniche), ricerca di finalità altruistiche (come nel caso del turismo solidale). Chiaramente, l'intensità con cui ognuna di queste dimensioni di valore effettivamente guida le scelte di ciascun individuo varia in base alle caratteristiche soggettive e di contesto.

I contributi esistenti nella letteratura nazionale e internazionale rivelano che esistono alcuni fattori chiave, che consentono di spiegare, adottando una prospettiva demand-driven, la crescita del wedding based-tourism. Moira *et al.* (2011) richiamano l'attenzione sulla possibilità, per gli sposi, di esprimere e/o qualificare il proprio status sociale mediante una specifica esperienza matrimoniale; Major *et al.* (2010) sottolineano

la ricerca di un'esperienza esotica, intima (Bertella, 2015; Chadiha *et al.*, 1998), unica e memorabile e che, magari, risulti anche meno costosa rispetto a un matrimonio *in loco*; circostanza, quest'ultima, resa possibile sia dal minor numero di invitati che decidono di partecipare effettivamente al matrimonio, sia dalla possibilità di trascorrere la luna di miele nella stessa destinazione del matrimonio (Shumann e Amado, 2010), originando quella che potrebbe essere denominata "*destination weddingmoon*". Peraltro, alcuni recenti studi fanno rilevare come la scelta di celebrare la luna di miele nella stessa destinazione in cui viene celebrato il matrimonio non sia guidata solo da motivazioni di natura economica. Infatti, tale scelta potrebbe anche dipendere dalla volontà di evitare quel senso di ansia, dispiacere e distacco che può originarsi quando gli sposi, una volta celebrato il matrimonio, devono allontanarsi dai propri affetti (Ingraham, 1999); per questa tipologia di persone, guidate perlopiù da motivazioni di socializzazione e di "*togetherness*" (Bertella, 2015), unire matrimonio e luna di miele è un modo per prolungare l'esperienza matrimoniale e condividerla con le persone alle quali tengono di più. Johnston (2006) rileva come gli sposi spesso possano decidere di celebrare un *destination wedding*, e gli invitati di parteciparvi, perché attratti dalla possibilità di immergersi nello spirito dei luoghi, di assaporarne l'autenticità e apprezzare la piacevolezza delle sensazioni che specifiche località possono offrire, specie quando presentate nell'ambito di momenti a elevato coinvolgimento emozionale (come sono, appunto, i matrimoni). Infine, un fattore determinante che orienta la scelta di celebrare un *destination wedding* è rinvenibile nella possibilità per gli sposi di emanciparsi da una serie di cliché imposti dalle famiglie e/o dal contesto sociale del luogo di residenza, nonché nella possibilità di fare altrove ciò che le leggi nazionali non consentono di fare; circostanza, quest'ultima, che può verificarsi, ad esempio, nel caso dei matrimoni gay (Appleton, 2014; Freeman, 2002; Johnston, 2006; Schumann e Amado, 2010).

La rassegna della letteratura in materia di *wedding-based tourism* evidenzia come gli studi esistenti che analizzano in profondità le motivazioni e le dimensioni di valore ricercate dalle coppie che decidono di celebrare un *destination wedding* siano ancora molto scarsi, se non di fatto inesistenti. Il presente studio contribuisce a colmare questa lacuna interpretativa presentando e discutendo i risultati di un'indagine esplorativa di tipo qualitativo effettuata su un campione di coppie italiane e straniere che hanno celebrato un *destination wedding*. Allo stesso tempo, esso intende fornire informazioni utili per tutti coloro che sono interessati ad accrescere la dimensione di questo fenomeno. Dal momento che la scelta di celebrare un *destination wedding* è guidata da motivazioni di diversa natura e intensità, i risultati di questo studio intendono offrire spunti di riflessione utili per formulare strategie di segmentazione in base alle motivazioni (Lee *et al.*, 2004) e politiche di prodotto e di comunicazione mirate.

3. Metodologia

Il nostro studio è di stampo costruttivista ed è basato, quindi, sullo sviluppo di nuova conoscenza mediante l'analisi e lo studio dei punti di vista

e delle motivazioni di fondo dei singoli individui, valorizzando le loro caratteristiche soggettive, le loro esperienze e le interazioni sociali in cui essi sono coinvolti (Creswell e Clark, 2011).

In linea con questi propositi, avremmo voluto effettuare interviste in profondità con coppie che avessero sperimentato un *destination wedding*, ma a seguito di colloqui preliminari con una serie di *wedding planner* che si sono resi disponibili come partner dell'indagine abbiamo realizzato quanto potesse essere difficile ottenere la disponibilità da parte delle coppie per approfondire in via diretta aspetti così intimi. Di fronte a questa difficoltà, abbiamo deciso di optare per la triangolazione dei dati. Innanzitutto, abbiamo preso contatto con il Comune di Verona (uno dei Comuni maggiormente attivi nelle politiche di marketing volte all'attrazione di turismo matrimoniale) e con sei *wedding planner* (di cui uno straniero e cinque italiani); questi interlocutori sono stati individuati tramite una ricerca destrutturata su Google (ricerca di agenzie specializzate nel turismo matrimoniale) e valorizzando le reti di contatti personali degli autori. Con tre di questi operatori è stato possibile effettuare interviste in profondità per comprendere lo scenario complessivo del *wedding tourism*, comprese le principali motivazioni che guidano le scelte di questo particolare tipo di turisti. Un'altra fonte di dati è stata rappresentata dalla ricerca tramite Google (mediante parole chiave come "turismo matrimoniale", "*wedding tourism*", "*destination wedding*", "sposarsi all'estero", "matrimoni all'estero", "*wedding abroad*") di forum e altri spazi *web* che ospitassero opinioni, considerazioni e curiosità di turisti matrimoniali effettivi e potenziali. I dati così acquisiti sono stati trasposti in un *report* lungo sette pagine, organizzato per aree tematiche rilevanti. Infine, la terza e più cospicua fonte di dati è stata rappresentata da 38 interviste con coppie che hanno optato per un *destination wedding*. In questo caso, l'indagine è stata realizzata mediante l'utilizzo di una guida di intervista, suddivisa in due parti. Nella prima parte, i rispondenti sono stati invitati a fornire informazioni sul luogo di residenza degli sposi (nazione e città) (si veda tabella 1). Da segnalare che non è stato possibile inserire altre domande sul profilo socio-demografico dei rispondenti per esplicita richiesta dei *wedding planner* coinvolti nella realizzazione dello studio, i quali, sin dall'inizio, si sono dichiarati disponibili a collaborare alla realizzazione dell'indagine a patto che le domande delle interviste fossero meno intrusive possibile e che fosse assicurata la completa privacy dei rispondenti. La seconda parte includeva domande aperte finalizzate a comprendere le principali motivazioni alla base della scelta di celebrare un *destination wedding*, le motivazioni alla base della scelta di un *wedding planner* (laddove gli sposi vi avessero fatto ricorso) e, infine, le caratteristiche più importanti che una destinazione deve avere per essere considerata una meta ideale per celebrare un *destination wedding*. Una volta creata in forma scritta, la guida di intervista (che, per i motivi indicati in precedenza, è poi risultata un questionario semistrutturato) è stata trasformata in una *survey online* somministrata a un campione di 214 coppie, individuate grazie alla collaborazione dei partner di ricerca. Delle 214 coppie invitate a prendere parte all'indagine, 46 hanno aderito (21,5%), ma 8 sono state scartate in quanto i relativi questionari contenevano risposte poco dettagliate o poco pertinenti, o, ancora, perché

in alcune di queste coppie uno degli sposi risultava residente nella medesima città in cui si è celebrato il matrimonio. Per tale via, il presente studio si basa sull'analisi di 38 questionari semistrutturati. Va aggiunto che in tre casi è stato possibile effettuare delle integrazioni (in due casi via email e in un altro mediante *skype call*) rispetto al questionario, grazie alla disponibilità mostrata dagli intervistati. Nel complesso, considerando i principali contributi della letteratura in materia di ricerca qualitativa, il numero delle interviste utilizzate per l'indagine sono considerabili accettabili ai fini di un'indagine qualitativa esplorativa. Ad esempio, Marshall *et al.* (2013) considerano come accettabile un numero di interviste compreso tra 20 e 30. In maniera simile, Saunders (2012) considera come accettabile un numero di interviste che sia ricompreso tra 12 e 30.

Tab. 1: Residenza dei rispondenti e destinazione scelta

Id	Provenienza sposi	Wedding Destination
1	Savona (Italia)	Atollo di Aitutaki (Isole Cook)
2	Bergamo (Italia)	Seychelles
3	Varese (Italia)	Mauritius
4	Savona (Italia)	Seychelles
5	Milano (Italia)	Seychelles
6	Tokyo (Giappone)	Amalfi (Italia)
7	Tokyo (Giappone)	Amalfi (Italia)
8	Udine (Italia) e Vryheid (Sudafrica)	Seychelles
9	Bologna (Italia)	Seychelles
10	Padova e Cagliari (Italia)	Baschi (Italia)
11	Roma (Italia)	Las Vegas (USA)
12	Pavia ((Italia)	Montignano (Italia)
13	Ferrara e Ravenna (Italia)	New York (USA)
14	Zurigo (Svizzera)	Positano (Italia)
15	Dublino (Irlanda) e Amsterdam (Olanda)	Ravello (Italia)
16	Tokyo (Giappone)	Ravello (Italia)
17	Kanagawa e Saitama (Giappone)	Maiori (Italia)
18	Londra (Inghilterra)	Las Vegas (USA)
19	Vicenza (Italia)	Verona (Italia)
20	Brescia (Italia)	Verona (Italia)
21	Salerno e Roma (Italia)	Chamoi (Italia)
22	Milano (Italia)	Seychelles
23	Regno Unito	Praga (Repubblica Ceca)
24	Regno Unito	Praga (Repubblica Ceca)
25	Kazakistan e Russia	Praga (Repubblica Ceca)
26	Canada	Praga (Repubblica Ceca)
27	Russia	Verona (Italia)
28	Russia	Verona (Italia)
29	Vilnius (Lituania)	Ravello (Italia)
30	Vilnius (Lituania)	Ravello (Italia)
31	Oslo (Norvegia)	Ravello (Italia)
32	Vilnius (Lituania)	Ravello (Italia)
33	Kaunas (Lituania)	Ravello (Italia)
34	Vilnius (Lituania)	Ravello (Italia)
35	Russia	Verona (Italia)
36	Milano (Italia)	Seychelles
37	Torino (Italia)	Santa Lucia
38	Mantova (Italia)	Capannori (Italia)

Fonte: Elaborazioni da nostra indagine empirica

Inoltre, è da rilevare come l'analisi del contenuto delle interviste pervenute abbia evidenziato il raggiungimento del punto di saturazione, ossia del numero di interviste superato il quale è rilevabile una sostanziale ripetizione e ridondanza dei contenuti e dei costrutti (Patton, 2002). Nello specifico, analizzando le risposte nella sequenza con cui le interviste sono pervenute al *team* di ricerca, tale punto di saturazione è stato raggiunto a partire dalla trentunesima intervista pervenuta, le motivazioni alla base della scelta di celebrare un *destination wedding* risultavano sostanzialmente equivalenti a quelle messe in luce dalle precedenti risposte.

Per quanto riguarda il profilo delle 38 coppie di cui sopra, in 36 casi si tratta di coniugi residenti nel medesimo Stato (in molti casi nella medesima città o provincia), in 32 di coppie che hanno scelto di sposarsi all'estero. Delle 6 coppie che hanno deciso di sposarsi in un'altra città, ma in Italia, 3 hanno scelto destinazioni a breve raggio e 3 destinazioni a medio-lungo raggio.

Prima dell'analisi dei testi, i questionari pervenuti in inglese sono stati tradotti in italiano. Una prima analisi è stata effettuata dal *team* di ricerca in modo congiunto al fine allo scopo di verificare se fosse necessario procedere a richiedere ai rispondenti integrazioni o delucidazioni (operazione avvenuta, come premesso, in 3 casi su 38, con esito positivo). In seguito, i membri del *team* di ricerca hanno analizzato e interpretato i testi, organizzandoli in categorie concettuali specifiche.

4. Risultati

Dall'analisi delle risposte fornite, una delle motivazioni più ricorrenti che spinge gli sposi a celebrare un *destination wedding* è la possibilità di ridurre le spese necessarie per organizzare il matrimonio, grazie ai minori costi che i diversi servizi necessari hanno in alcuni Paesi, alla possibilità di ridurre/contenere il numero degli invitati e, infine, alla possibilità di evitare di sostenere costi che si renderebbero necessari per organizzare l'evento secondo le tradizioni socio-culturali del paese/città di residenza degli sposi; tutte motivazioni che potrebbero essere considerate di natura "funzionale".

> *'... il costo di un matrimonio all'estero è in genere molto più basso rispetto a un matrimonio classico in Inghilterra' (Id 23)*
> *'... se non avessimo fatto questa scelta, avremmo dovuto invitare un sacco di parenti e amici... sposarci all'estero ci ha aiutato a comprimere le spese. A dire il vero, noi ci siamo sposati proprio da soli. Nessuno di coloro che abbiamo invitato ha potuto presenziare. Al di là di tutto, la possibilità di ridurre le spese per noi era cruciale (Id 2)*
> *'Avevamo bisogno di comprimere le nostre spese... Se ci fossimo sposati in Italia, saremmo stati costretti a rispettare una serie di passaggi standard, dalle partecipazioni, alla corposa lista di invitati, alle bomboniere' (Id 36)*

Un'altra importante motivazione, per certi versi collegata alla precedente, risiede nel desiderio di sottrarsi a norme e *routine* dettate dal

contesto sociale e familiare di riferimento e, quindi, di vivere un'esperienza in piena libertà, diversa dal solito, spensierata e divertente; ciò senza incorrere nel "pericolo" di dover organizzare il tutto al solo scopo di compiacere i desideri di altre persone o norme sociali o, ancora peggio, che il matrimonio diventi principalmente un momento per dimostrare lo status socio-economico degli sposi e delle famiglie (come spesso accade in alcuni Paesi, come l'Italia e il Giappone).

'Non ci piaceva l'idea di un matrimonio tradizionale. Volevamo sentirci liberi di organizzare qualcosa di speciale solo per noi, senza stress e anche un po' selvaggia' (Id 5)
'... i matrimoni in Giappone sono molto tradizionali e con un sacco di regole da rispettare, molto stringenti. Ad esempio, devi per forza coinvolgere i familiari di entrambi gli sposi nell'organizzazione dell'evento ... e quando le famiglie hanno punti di vista e priorità differenti, nascono grandi problemi. Per evitare tutto questo, abbiamo deciso di semplificarci la vita e di goderci il nostro matrimonio. L'unico modo per farlo era sposarsi all'estero' (Id 16)
'... il mio abbigliamento era davvero casual, con pantaloni semplici, t-shirt bianca e infradito. Anche mia moglie indossava un abito molto semplice...' (Id 4)

Un'altra motivazione è rappresentata dal desiderio di vivere un'esperienza intima, dove al centro di tutto c'è, prevalentemente, la coppia e il rapporto tra gli sposi.

'Il motivo più importante per sposarci lontano dalla città in cui viviamo era la possibilità di poter avere una certa privacy e vivere un'esperienza più intima, con un ristretto numero di persone care con noi, scoraggiando tutti quegli invitati che altrimenti, con tutta probabilità, si sarebbero sentiti obbligati a partecipare, anche senza averne tutta questa voglia' (Id 10)
'Sposarci all'estero era un modo per stare lontano da tutti, e goderci il matrimonio da soli, solo io e mio marito' (Id 36)

Collegato al precedente è il ricorrente desiderio di celebrare un matrimonio "altrove" per realizzare un sogno e vivere un'esperienza memorabile (Pine e Gilmore, 1999); per questo motivo, a volte gli sposi, per rendere ancora più magica l'atmosfera dell'evento, scelgono destinazioni in cui sono stati girati film famosi, alimentando, per tale via, una sorta di '*film-induced tourism*' (Beeton, 2005; Hudson e Ritchie, 2006).

'Volevamo rendere il nostro matrimonio e la nostra luna di miele più speciali e magici possibili' (Id 25)
'Eravamo eccitatissimi all'idea di poterci sposare in un posto straordinario e magico come New York, soprattutto nel periodo natalizio ... l'albero di Natale al Rockfeller Center è qualcosa di speciale e indimenticabile' (Id 13)
'Qualche anno fa andai a vedere il film A Good Woman, un adattamento cinematografico de Il ventaglio di Lady Windermere di Oscar Wilde, uno dei miei autori preferiti. Il film era ambientato nella splendida costiera amalfitana. Rimasi sconvolta dalla bellezza dei luoghi, magici ... Aspettai con pazienza che scorressero i titoli di coda per capire dove le scene fossero state girate. Decisi

che dovevo assolutamente andarci ... Qualche settimana dopo mi ritrovai a Ravello e mi innamorai subito sia del posto che delle persone. Entrai subito in sintonia con quei luoghi ... Io o il mio compagno non esitammo nel decidere che avremmo dovuto sposarci lì e così è stato!' (Id 15)

La scelta di celebrare un *destination wedding* non sempre è dettata, secondo quanto riferito dagli sposi, da motivazioni che vanno nell'esclusivo (o almeno prevalente) interesse della coppia, come finora rilevato (motivazioni che potremmo definire "*egocentric-driven*" o "*self-oriented*"); al contrario, talvolta, gli sposi optano per un *destination wedding* anche per motivazioni di natura altruistica (motivazioni "*altruistic-driven*" o "*other-oriented*"). A volte, infatti, questa scelta viene fatta per facilitare la partecipazione di invitati che vivono in località diverse (anche in diversi Paesi nel mondo) e anche per "regalare" agli invitati la possibilità di vivere un'esperienza unica e memorabile.

'*Avevamo invitati da diverse parti del mondo e sentivamo l'esigenza di offrirgli l'occasione di vivere momenti splendidi, in un posto speciale; insomma, l'occasione per una piccola vacanza, indimenticabile' (Id 14)*
'Dovevamo scegliere un luogo speciale, dove poter regalare anche ai nostri cari un'esperienza bella e magari svegliarci il giorno dopo tutti assieme, fare colazione e poi pian piano dirigerci verso casa, magari facendo una tappa intermedia in uno dei bellissimi posti che si incontrano venendo via dalla Toscana' (Id 38)

Altre volte, si sceglie di celebrare un *destination wedding* anche per semplificare la scelta degli invitati (specie di quelli che non hanno legami affettivi forti con gli sposi) di partecipare oppure no al matrimonio, liberandoli dall'imbarazzo di dover giustificare la propria impossibilità o scarsa voglia di essere presenti alla cerimonia e anche di doverne sostenere i relativi costi.

'*Il nostro obiettivo era vivere con gioia e soddisfazione il nostro matrimonio, senza obbligare nessuno a parteciparvi, dando a quelle persone che avremmo comunque dovuto invitare il pretesto per svincolarsi da questa incombenza ... Voi avete mai visto qualcuno felice nel ricevere una partecipazione di matrimonio?' (Id 5)*

Infine, celebrare un *destination wedding* è considerato un modo per vivere in modo pienamente consapevole e autentico la spiritualità dell'evento e il suo significato più profondo, evitando, quindi, qualunque forma di commercializzazione dello stesso.

'Il motivo della nostra scelta? Viverci il momento, sentirlo ... secondo noi le persone dovrebbero vivere il vero senso del matrimonio, lasciando un po' da parte il contorno; la magia di quei momenti e di quelle sensazioni, condivisi fra i soli veri protagonisti di questa esperienza ...' (Id 1)
'Eravamo concentrati solo sui nostri sentimenti e sulle nostre sensazioni, quindi non volevamo organizzare una di quelle grandi feste con persone

quasi sconosciute e condividere tutto questo con loro' (Id 3)
'... la nostra scelta ci ha permesso di focalizzarci sul significato del matrimonio, sulla sua autenticità e spiritualità' (Id 21)
'Volevamo un matrimonio semplice e autentico, giusto con le poche persone che davvero amiamo, per condividere questa esperienza con loro' (Id 4)

Incrociando gli spunti offerti dai contributi esistenti sul tema, le nostre evidenze empiriche e le più generali tendenze in atto nello scenario socio-economico globale, proponiamo di seguito un possibile *framework* di lettura dei principali fattori che complessivamente determinano lo sviluppo di questo tipo di turismo, le motivazioni che guidano le scelte delle coppie e i loro benefici ricercati (figura 1).

Fig. 1: I driver dello sviluppo del wedding-based tourism

Fattori economici: Crescita costi matrimoni domestici Minori costi per spostamenti internazionali Crisi economica internazionale
Fattori legati all'offerta: Crescente numero operatori specializzati Crescente numero destinazioni matrimoniali
Fattori legati alla domanda: Viaggiatori esperti, disinvolti, informati Maggiore interesse per esperienze uniche Evoluzione concetto matrimonio e significati associati Crescente numero matrimoni civili Segmenti di mercato emergenti (es: segmento gay)

→

Motivazioni	*Benefici ricercati*
Self-oriented driven	Possibilità di concentrarsi sulla coppia
Other-oriented driven	Facilitare la partecipazione degli invitati Offrire agli invitati un'esperienza di vacanza memorabile
Funzionali	Comprimere costi, "aggirare" norme e clichè sociali
Emotive/esperienziali	Vivere un'esperienza unica, memorabile, autentitica
Sociali	Condividere un'esperienza di vacanza con parenti e amici più stretti

Fonte: nostre elaborazioni da Major *et al.*, 2010 e risultati del nostro studio.

Nello specifico, si possono individuare tre categorie di fattori: economici, legati all'offerta e legati alla domanda.

Riguardo ai fattori economici si può far riferimento, in primo luogo, al minor costo degli spostamenti a livello globale e alle maggiori opportunità esistenti in tal senso.

In secondo luogo, la decisione di celebrare un *destination wedding* sembra essere una conseguenza anche del maggiore costo che i matrimoni possono talvolta avere se organizzati nei Paesi di residenza, e ciò non solo per il maggior costo che i servizi necessari per l'organizzazione dell'evento possono avere in certi Paesi, ma anche per come il matrimonio in alcuni casi "deve essere organizzato" per rispondere alle regole socio-culturali dei luoghi di abituale residenza degli sposi (Moira *et al.*, 2011). Va peraltro considerato l'impatto della crisi economica internazionale e la conseguente maggior attenzione al contenimento dei costi che essa impone.

Per quanto attiene i fattori legati all'offerta, il primo aspetto da considerare è il crescente numero di operatori (*wedding planner*, *tour operator*, uffici cerimoniali degli enti pubblici, ecc) che assieme concorrono alla crescita di questo mercato, fornendo soluzioni di vario tipo e indirizzando con le campagne di comunicazione. In quest'ambito, come premesso, va anche rilevato come cresca rapidamente il numero di destinazioni che decidono di specializzarsi nell'attrazione di questo tipo di flussi turistici, puntando sul proprio palcoscenico naturale, sulla flessibilità, sulla completezza dei servizi offerti, in via diretta o mediante la propria rete locale di operatori, variamente configurata (Del Chiappa e Fortezza, 2015).

Infine, per quanto attiene i fattori legati alla domanda, è da considerarsi, in primo luogo, il fatto che i consumatori sono sempre più esperti e disinvolti nella ricerca delle informazioni necessarie all'organizzazione dei propri viaggi, soprattutto grazie al *web* (Lu e Chen, 2014). Altri elementi da considerare sono la tendenziale preferenza dei consumatori-turisti postmoderni per esperienze sempre più particolari, memorabili e personali (Fabris, 2008); l'evoluzione del concetto di matrimonio e dei significati a esso associati, anche in Paesi tradizionalmente più conservatori, come il Giappone, dove il matrimonio si sta lentamente trasformando da evento "*family-oriented*" a evento "couple-oriented" (Schumann e Amado, 2010); il crescente numero di matrimoni civili (anche seconde nozze), una tipologia di matrimonio che si presta ad essere celebrato in un luogo diverso da quello di residenza, dato che in questi casi viene meno il possibile vincolo alla comunità religiosa di appartenenza degli sposi; la crescita del numero dei matrimoni omosessuali, che spesso possono celebrarsi solo in Paesi diversi da quello di abituale residenza degli sposi.

Si può quindi affermare che le motivazioni che orientano la scelta di celebrare un *destination wedding* sono essenzialmente di natura "*self-oriented*", "*other-oriented*", funzionali, emotive/esperienziali e sociali, così come della stessa natura sono (ovviamente) i benefici che tale scelta consente di ottenere.

5. Conclusioni

Questo studio, qualitativo e di tipo esplorativo, si è posto l'obiettivo di indagare le motivazioni di fondo che spingono le coppie a celebrare un *destination wedding*.

I risultati dello studio contribuiscono sia ad appronfondire il dibattito teorico-scientifico, ancora poco sviluppato ma in forte sviluppo, che ruota intorno a tale tematica, sia a suggerire indicazioni manageriali.

Da un punto di vista teorico, i risultati di questo studio evidenziano come alla base del turismo matrimoniale vi siano sia motivazioni "*self-oriented*" che "*other-oriented*" (es: non mettere in difficoltà gli invitati, creare il pretesto per prendersi una vacanza in piacevole compagnia), sia motivazioni di tipo funzionale (riduzione dei costi, maggiore semplicità nell'organizzazione della cerimonia, ecc.) che di tipo emozionale/esperienziale (vivere un'esperienza intima, spirituale, autentica, ecc.) e sociale (condividere un'esperienza memorabile con le persone più care).

Per tale via, i risultati confermano, anche nello specifico ambito oggetto del presente studio, la validità e l'utilità dei modelli del marketing esperienziale (Goldsmith e Tsiotsou, 2012; Pencarelli e Forlani, 2002) e del *consumer value* (Gallarza *et al.*, 2011; Holbrook, 1999; Woodward e Holbrook, 2013), come anche recentemente proposto da Bertella (2015), e suggerisce di proseguire con ulteriori indagini di tipo quantitativo per generalizzare i risultati esplorativi di questo studio e individuare altri fattori che possono incidere sul processo decisorio che porta a celebrare un *destination wedding* (ad esempio, il contesto culturale di appartenenza, la personalità degli sposi, ecc).

Nello specifico, nella nostra analisi sembrano prevalere motivazioni di tipo individualistico, funzionale ed emozionale. Chiaramente, coerentemente con l'idea, oramai consolidata, che le variabili culturali influenzino il comportamento del turista e le sue scelte (Pizam e Sussman, 1995), anche nel processo di scelta del *destination wedding* sembra influire molto il *background* culturale degli sposi. Si è visto, ad esempio, come per i nostri rispondenti italiani e giapponesi la possibilità di emanciparsi dalle regole sociali sia una necessità particolarmente sentita.

Il presente contributo fornisce anche informazioni utili a indirizzare i processi decisori degli operatori (*policy maker*, *destination marketer*, *wedding planner*, *tour operator*, ecc) interessati a questo mercato e, più nello specifico, suggerisce strategie di segmentazione su base comportamentale (ovvero per motivazioni e benefici ricercati) (Lee *et al.*, 2004). Come logica conseguenza, questa stessa conoscenza supporta le politiche di prodotto e comunicazione a livello territoriale (Del Chiappa e Fortezza, 2015). Ad esempio, tali informazioni possono supportare l'ideazione di campagne pubblicitarie che spingano le coppie di futuri sposi a considerare la possibilità di celebrare un *destination wedding*, evidenziando, in primis, tutti i costi economici, emotivi e sociali che possono conseguire dalla scelta di celebrare un matrimonio tradizionale (gli elevati costi per l'organizzazione del matrimonio, la necessità di rispettare regole sociali imposte dal proprio contesto di residenza, ecc.) e presentando, poi, il *destination wedding* come una possibile "*exit strategy*" che consente loro di ottenere uno o più dei benefici che, come evidenziato da questo studio, vengono associati a tale scelta. Inoltre, lo studio suggerisce l'opportunità di promuovere e posizionare i territori come destinazioni di turismo matrimoniale attraverso l'uso del *product placement* cinematografico sfruttando, per tale via, le potenzialità offerte dal *film-induced tourism*.

Nonostante il contributo teorico e manageriale di questo studio, occorre evidenziarne alcuni limiti. Il primo è insito nella natura metodologia d'indagine utilizzata. Se da un lato un'indagine qualitativa può essere utile per analizzare in profondità un fenomeno emergente e/o poco studiato, valorizzando il vissuto e la narrazione dei soggetti direttamente coinvolti, dall'altro i risultati non possono essere generalizzati (Creswell e Clark, 2011). Inoltre, il fatto di aver somministrato il questionario *online* potrebbe aver generato dei bias a causa dell'interpretazione soggettiva che i ricercatori coinvolti nello studio potrebbero aver fatto nell'analizzare e codificare il testo narrativo; circostanza che gli autori hanno cercato di evitare rafforzando l'interpretazione dei dati mediante la triangolazione degli stessi.

Da questi stessi limiti emergono interessanti traiettorie di ricerca. In primo luogo, sarebbe auspicabile che i risultati di questa qualitativa fossero utilizzati per informare, insieme a quanto già evidenziato dalla letteratura esistente, lo sviluppo di una *survey* da utilizzare per condurre un'analisi quantitativa che consenta la generalizzazione dei risultati e/o l'applicazione di analisi statistiche più sofisticate, tra cui, auspicabilmente, l'analisi *cluster*; questo consentirebbe di verificare, ad esempio, se e con quale intensità le motivazioni che spingono a celebrare un *destination wedding* cambino in base alle variabili socio-demografiche delle coppie (età, provenienza geografica, ecc.), alla loro personalità, al loro stile di vita e al loro *background* culturale. Ad esempio, potrebbe emergere che a seconda che siano considerate coppie di Paesi con cultura maggiormente orientata al valore del collettivismo piuttosto che a quello dell'individualismo (Hofstede, 1991; Kacen e Lee, 2002; McCarty e Shrum, 2001) tendano a prevalere, rispettivamente, motivazioni di tipo "*other-oriented*" piuttosto che "*self-oriented*", e viceversa. Inoltre, potrebbe essere interessante analizzare l'influenza che le nuove tecnologie, internet e i social media esercitano sul processo di scelta della destinazione, sul tipo di esperienze che vengono vissute dalla coppia e dai partecipanti una volta a destinazione e, infine, sulle modalità con cui tali esperienze vengono condivise *on-line* durante e dopo l'evento. Infine, sarebbe interessante effettuare uno studio per verificare quanto effettivamente sia sviluppata e completa la conoscenza che i *wedding planner* italiani e internazionali hanno delle diverse tipologie di motivazioni che spingono le coppie a celebrare un *destination wedding*.

Bibliografia

APPLETON F.S. (2014), "Domicile and inequality by design: the case of destination weddings", *Michigan State Law Review*, 14-06-02, pp. 1449-1479.

AROSIO L. (2010), "Il turismo matrimoniale tra tradizione e mete esclusive", in Marra E., Ruspini E., *Altri turismi. Viaggi, esperienze, emozioni*, Franco Angeli, Milano.

BARTOLAZZI F.V., FORTEZZA F., FORLANI F. (2008), "Caratteri e potenzialità degli eventi come esperienze mediterranee: il caso Palio de lo Daino", *Mercati e Competitività*, n. 4, pp. 71-99.

BEETON S. (2005), *Film-induced tourism*, Channel View Publications, Bristol, UK.

BERTELLA G. (2015), "Celebrating the family abroad: the wedding tourism experience", *Annals of Leisure Research,* (ahead-of-print), 1-17.

BOWDIN G., ALLEN J., O'TOOLE W., HARRIS R., MCDONNEL I. (2006), *Events Management*, 2nd edn., Elsevier, Oxford, UK.

CHADIHA L.A, LEBER D., VEOFF J. (1998), "Newlyweds' narrative themes: meaning in the first year of marriage for African American and white couples", *Journal of Comparative Family Studies*, vol. 29, n. 1, pp. 115-130.

CLOKE P., PERKINS H.C. (1998), "Cracking the canyon of the awesome foursome: Representations of adventure tourism in New Zealand", *Environment and Planning D: Society and Space*, vol. 16, n. 2, pp. 185-218.

CORREIA A., OOM DO VALLE P., MOÇO C. (2007), "Why people travel to exotic places", *International Journal of Culture, Tourism and Hospitality Research*, vol. 1, n. 1, pp. 45-61.

CRESWELL I.W., CLARK V.P.L. (eds) (2011), *Designing and Conducting Mixed Methods Research*, 2nd edn., Sage, London, UK.

DALLI D., ROMANI S. (2003), *Il comportamento del consumatore. Acquisti e consumi in una prospettiva di marketing*, Franco Angeli, Milano.

DANIELS M., LOVELESS C. (2007), *Wedding Planning & Managemen*t, Elsevier, Oxford, UK.

DEL CHIAPPA G. (2016), "Wedding-based tourism", in Jafari J., Xiao H. (eds), *Encylopedia of Tourism*, p. 1018, Springer, Switzerland.

DEL CHIAPPA G., FORTEZZA F. (2014), "The motivations for wedding tourism: a demand-side perspective", in Kozak M., Kozak N. (eds), *Proceedings of 7th World Graduate Conference for Graduate Research in Tourism, Hospitality and Leisure*, Istanbul, Turkey.

DEL CHIAPPA G., FORTEZZA F. (2015), "Wedding-based tourism development: an exploratory analysis in the context of Italy", in Gnoth J., Kozak M., Correia A., Fyall A. (eds), *Places and Spaces*, Emerald, Bingley, UK.

ELLIS S., KRUGER S., SAAYMAN M. (2014), "The influence of travel motives on visitor happiness attending a wedding expo", *Journal of Travel and Tourism Marketing*, vol. 31, n. 5, pp. 649-665.

FABRIS G. (2008), *Societing. Il marketing nella società postmoderna*, Egea, Milano.

FERRARI S. (2002), *Event Marketing. I grandi eventi e gli eventi speciali come strumenti di marketing*, Cedam, Padova.

FORTEZZA F. (2010), "Gli eventi locali come esperienze mediterranee: ruolo per lo sviluppo turistico del territorio", in Pencarelli T. (a cura di), *Marketing e Management del Turismo,* Edizioni Goliardiche, Trieste.

FORTEZZA F., DEL CHIAPPA G. (2012), "Il wedding-based tourism come leva di valorizzazione territoriale", in *Referred Electronic Conference Proceedings of XXIV Convegno annuale di Sinergie: Il territorio come giacimento di vitalità per l'impresa*, Università del Salento, Lecce, Italy, pp. 329-342.

FREEMAN E. (2002), *The Wedding Complex: Forms of Belonging in Modern American Culture*, Duke University Press, Durham and London, UK.

GALLARZA M.G., GIL I. (2008), "The concept of value and its dimensions. A tool for analysing tourism experiences", *Tourism Review*, vol. 63, n. 3, pp. 4-20.

GALLARZA M.G., GIL-SAURA I.G., HOLBROOK M.B. (2011), "The value of value: Further excursions on the meaning and role of customer value", *Journal of Consumer Behaviour*, vol. 10, n. 4, pp. 179-191.

GETZ D. (2008), "Event tourism: definition, evolution, and research", *Tourism Management,* vol. 29, n. 3, pp. 403-428.

GOLDBATT J. (2002), *Special Events: Twenty-first Century Global Event Managemen*t, John Wiley & Sons, Inc, New York.

GOLDSMITH R.E., TSIOTSOU R.H. (2012), "Introduction to experiential marketing", in Tsiotsou R.H., Goldsmith R.E. (eds), *Strategic Marketing in Tourism Services,* Bingley, Emerald, pp. XXXII-XL.

HOFSTEDE G. (1991), *Cultures and organizations. Software of the mind*, McGraw-Hill, London.

HOLBROOK M.B. (1999), *Consumer value. A Framework for Analysis and Research*, Routledge, London, UK.

HOLBROOK M.B., HIRSCHMAN E.C. (1982), "The experiential aspects of consumption: consumer fantasies, feelings and fun", *Journal of Consumer Research,* vol. 9, n. 2, pp. 132-140.

HUDSON S., RITCHIE J.R.B. (2006), "Promoting destination via film tourism: An empirical identification of supporting marketing initiatives", *Journal of Travel Research*, n. 44, pp. 387-396.

INGRAHAM C. (1999), *White Weddings: Romancing Heterosexuality in Popular Culture,* Routledge, New York.

JANG H., LEE S., LEE S.W., HONG S.K. (2007), "Expanding the individual choice-sets model to couples' honeymoon destination selection process", *Tourism Management*, vol. 28, n. 5), 1299-1314.

JFC (2012), *Wedding tourism*, Disponibile a: http://www.jfc.it/blog/wedding-tourism-sposarsi-in-italia/ (ultimo accesso: 25 Gennaio 2014).

JOHNSTON L. (2006), "'I do down-under': Naturalizing landscapes and love through wedding tourism in New Zealand", *ACME*, vol. 5, n. 2, pp. 191-208.

KACEN J.J., LEE J.A. (2002), "The influence of culture on consumer impulsive buying behavior", *Journal of Consumer Psychology*, vol. 12, n. 2, pp. 163-176.

KIM S.S., AGRUSA J. (2005), "The positioning of overseas honeymoon destinations", *Annals of Tourism Research*, vol. 32, n. 4, pp. 887-904.

LAING J., WHEELER F., REEVES K., FROST W. (2014), "Assessing the experiential value of heritage assets: a case study of a Chinese heritage precinct", *Tourism Management*, n. 40, pp. 180-192.

LEE C.F., HUANG H.I., CHEN W.C. (2010), "The determinants of honeymoon destination choice. The case of Taiwan", *Journal of Travel and Tourism Marketing*, vol. 27, n. 7, pp., 676-693.

LEE C.K., LEE Y.K., WICKS B.E. (2004), "Segmentation of festival motivation by nationality and satisfaction", *Tourism Management*, vol. 25, n. 1, pp. 61-70.

LU A.C.C., CHEN B.T. (2014), "Information search behavior of independent travelers: A cross-cultural comparison between Chinese, Japanese, and American travelers", *Journal of Hospitality Marketing and Management*, vol. 23, n. 8, pp. 865-884.

MAJOR B., MCLEAY F., WAINE D. (2010), "Perfect weddings abroad", *Journal of Vacation Marketing*, vol. 16, n. 3, pp. 249-262.

MARSHALL B., CARDON P., PODDAR A. FONTENOT, R. (2013), "Does sample size matter in qualitative research: a review of qualitative interviews in IS research", *Journal of Computer Information Systems*, n. 54, pp. 11-22.

MCCARTY J.A., SHRUM L.J. (2001), "The Influence of Individualism, Collectivism, and Locus of Control on Environmental Beliefs and Behavior", *Journal of Public Policy and Marketing*, vol. 20, n. 1, pp. 93-104.

MOIRA P., MYLONOPOULOS D., PARTHENIS S. (2011), "A sociological approach to wedding travel. A case study: honeymooners in Ioannina, Greece", in Hummel F. (ed.), *Proceedings of the 2011 Annual International Society of Travel and Tourism Educators (ISTTE) Conference, International Society of Travel and Tourism Educators*, St. Clair Shores, MI, USA, pp. 77-97.

PATTON M.Q. (2002), *Qualitative research and evaluation methods*, Sage, Thousand Oaks, CA.

PENCARELLI T., FORLANI F. (2002), "Il marketing dei distretti turistici-sistemi vitali nell'economia delle esperienze", *Sinergie*, n. 58, pp. 231-277.

PINE B.J., GILMORE J.H. (1999), *The Experience Economy. Work is Theatre & Every Business a Stage*, Harvard Business School Press, Boston.

PIZAM A., SUSSMANN S. (1995), "Does nationality affect tourist behavior?", *Annals of Tourism Research*, vol. 22, n. 4, pp. 901-917

RHEINBERG F. (1995), *Psicologia della motivazione*, Il Mulino, Bologna.

SAUNDERS M.N.K. (2012), "Choosing research participants", in Symon G., Cassell C. (a cura di), *Qualitative organizational research: core methods and current challenges*, Sage, London.

SCHUMANN F.R., AMADO C. (2010), "Japanese overseas weddings in Guam: a case study of Guam's first hotel wedding chapel", *South Asian Journal of Tourism and Heritage*, vol. 3, n. 1, pp. 173-181.

WOODWARD M.N., HOLBROOK M.B. (2013), "Dialogue on some concepts, definitions and issues pertaining to 'consumption experiences'", *Marketing Theory*, vol. 13, n. 3, pp. 323-344.

WORLD TOURISM ORGANIZATION (2012), *Global Report on LGBT Tourism*, AM Reports, vol. III.

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Abstract

Purpose of the paper: *This paper proposes a framework based on the concept of value-in-use generation for both stakeholders and companies.*

From a managerial perspective, value-in-use offers a useful tool to define strategies in the context of growing demand for corporate behaviours that demonstrate awareness and respect for the needs of all individuals.

Methodology*: Theoretical paper.*

Findings*: The paper contributes to management studies by introducing a fresh insight on strategic analysis and through the concept of integrated value-in-use proposes an alternative model to interpret reality, which integrates the perspectives of management and marketing.*

Research limits*: The main limits of this paper are its theoretical nature and lack of empirical research.*

Practical implications*: This paper contributes to managerial practices by proposing a framework to support strategic analysis and positioning choices within markets and networks.*

Originality of the paper*: This paper contributes to the debate on business strategy by providing the innovative concept of "integrated value-in-use" as a criterion for business choices, especially strategic ones.*

Key words: value-in-use; integrated value-in-use; stakeholders; strategy; resources; networks

1. Aims

Over the last twenty years, changes at the political, economic and competitive levels have led enterprises to focus more on the needs of all actors in relation to their activities. In fact, interaction and collaboration among diverse actors that integrate their specific resources in value creation processes (Vargo, 2008; Vargo and Lusch, 2008; Colurcio *et al.*, 2014) appear inevitable when setting up competitive business models in complex eco-systems (Myers, 2006).

Furthermore, the traditional understanding of cooperation as dyadic business relationships (Anderson *et al.*, 1994) between actors in the digital era is evolving towards an interaction among various actors and is becoming a significant strategic element for enterprises; in some cases, the multi-actor cooperation represents a unique survival factor (Camarinha-Matos, 2009) that guarantees access to the generation of resources that are otherwise not achievable.

Based on these main trends, this paper introduces the concept of integrated value-in-use generation and proposes it for the overall orientation of business strategic management.

This paper is fundamentally theoretical but offers a two-fold contribution, theoretical and managerial. From the theoretical perspective, some starting points for value for customers proposed in marketing research are developed as a way to introduce innovative insights in management studies. From the managerial point of view, the concept of integrated value-in-use introduces a perspective suitable for both interpreting reality and addressing business models.

The remainder of this paper is organized as follows. First, we review studies on strategic models and distinguish them between industry-based research and network-based studies. Section 3 proposes the construct of integrated value-in-use before presenting integrated value-in-use as a criterion for the strategic management of firms in section 4. Finally, sections 5 and 6 analyse the implications for management and research, respectively.

2. Strategic models

2.1 Industry-based

For many years, research on business strategy has focused on Industrial Organization studies (Mason 1939; Bain, 1956) and the structure-conduct-performance (S-C-P) paradigm. Business studies concerned traditionally large companies, focusing primarily on long-term planning processes - allowed by the stability of the environment and the predictable growth of markets - and the relationship between corporate strategy and organizational structure (Chandler 1962).

Strategic management studies arose with the contributions of Ansoff (1965) and Andrews (1971) and were also developed through the proposition of multiple tools, such as the SWOT analysis (Learned *et al.*, 1969), the BCG matrix and the General Electric-McKinsey matrix. These studies did not cause the breakthrough in the traditional S-C-P paradigm; the perspective of the Industrial Organization, in fact, still affects the concepts of strategic groups (Hunt, 1972) and mobility barriers (Caves *et al.*, 1977) with which intermediate units of analysis between business and industry are identified. Indeed, differences do exist between companies that operate in the same sector, but the level of analysis is intermediate between micro and macro, and at any rate, the industry remains the dominant framework for strategic business analysis.

With the contribution of M.E. Porter, the 1980s observed an authentic breakthrough from previous studies. Porter focuses on the strategic behaviour of firms as an element that can modify, at least in part, the structural characteristics of the industry in which they operate. Furthermore, according to Porter (1980), the position of a firm with respect to its suppliers, customers, firms offering substitute products, and new entrants affects the firm's performance. The possibility of diverse

strategic behaviour by different actors operating in the same competitive framework is highlighted in contributions by Jacquemin and de Jong (1977) and Scherer (1980). Meanwhile, through the Strategic Business Areas (SBA), Abell (1980) expands beyond the concept of industry as a container of competitive relations as follows: the elementary units of the competitive context are, in fact, represented by strategic business areas, and, therefore, the space in which businesses can develop can also be transversal to multiple industries.

The possibility of non-industry based strategic choices represents the main contribution of studies by Hax and Majluf (1996), who propose the concept of vision; it is defined as a statement of a nearly permanent character that aims to a) communicate the nature of the company in terms of corporate goals, corporate growth and leadership among its competitors; b) provide an outline, which frames the interaction between the business and its main stakeholders; and c) steer "missions" of different "business units" as a business philosophy.

Based on empirical research showing differences in the performance of businesses that operate in the same industry (Kim and Lim, 1988), different research perspectives have emerged to identify factors of competitive advantage and the direction of business development.

By taking into account the original intuitions of Penrose (1959), the authors of the resource-based view (Wernerfelt, 1984; Hamel and Prahalad, 1989; Barney 1991; Grant, 1991) cite resources as a determinant of business performance. In particular, Barney (1991) proposes the VRIO model that emphasizes the role played by valuable, rare, inimitable and well exploited resources. Other authors identify specific typologies or bundles of resources as relevant. Peteraf (1993) notes the following four "cornerstones" of competitive advantage: the diversification of resources among businesses, the limits ex post and ex ante towards competitors, and the imperfect mobility of resources. Nonaka and Takeuchi (1995) attribute strategic value to knowledge and propose the well-known "SECI model" (Socialization-Externalization-Combination-Internalization); on the contrary, Teece *et al.* (1997) emphasize the role of dynamic capabilities defined as "the firm's ability to integrate, build, and reconfigure internal and external competences".

In contrast, Mauborgne and Kim (2005) suggest a strategic management model that is not related to business resources but rather is based on a "reconstructive" approach expanding beyond the competition-based vision. According to this model, it is possible to modify industry boundaries by analysing the current strategic framework and redefining the company's "value curve". The industry no longer constrains the firms' conduct and performance, but its boundaries can be remodelled to create new markets where competition is absent according to the authors.

2.2 Network-based

A substantial override of the industry-based view, however, is associated with the development of network research. In the early 1990s, Normann and Ramirez (1993) highlight businesses as part of "value creating systems", and the main goal of strategy is "the reconfiguration of roles and relationships

among [a] constellation of actors to mobilize the creation of value in new forms and by new players" (p. 65). During the early1980s, however, studies on Industrial Marketing and Purchasing (IMP) at the University of Uppsala and the Stockholm School of Economics considered firms as embedded in complex networks that were different from each other and were, in any event, non-industry related.

To investigate the structural and evolutionary characteristics of networks, Håkansson and Johanson (1992) develop the ARA model (Actors, Resources, Activities), according to which the outcomes of an interaction process (or the content of a business interaction) can be described in terms of the following three layers: actor, bonds, activity links and resource ties between the counterparts (Håkansson and Snehota, 1995).

Therefore, on the one hand, inter-organizational relations, previously considered only as competitive, can also be regarded as collaborative, becoming a source of resources and capabilities that are useful for business strategy (Ford and Mouzas, 2008). On the other hand, firm performance depends not only on the interaction with direct counterparts but also on diverse complementary or alternative interactions that the latter engage in with other actors (Håkansson and Snehota, 1989; Gulati and Gargiulo, 1999).

Although strategy was not the main research focus of the IMP (Baraldi *et al.*, 2007), in this latter context, the contribution of Tikkanen and Halinen (2003) is worth noting. By integrating the Northern European research that considers networks as emergent structures with the American-based strategic network approach that considers networks as hierarchical structures that are organized and managed by a single focal firm (Jarillo, 1988; Zaheer *et al.*, 2000; Lorenzoni and Baden-Fuller, 1995), Tikkanen and Halinen propose a strategic managerial model consisting of the following three types of activities: i) positioning (previously cited by Axelsson, 1992; Mattsson and Johanson, 1992) aimed to establish, stabilize or dissolve interactions with partners; ii) mobilizing relative to the involvement of other actors in their strategic conduct and definition; and iii) visioning (also cited by Möller and Halinen, 1999) aimed at predicting possible network evolution also through the consideration of *invisible relationships* that are potential or operable, but undefined, interactions.

The model proposed by Tikkanen and Halinen is helpful to strategic management in the current business environment, which is characterized by the progressive decrease in territory, industry and knowledge barriers that previously guaranteed sustainable competitive advantages. Based on the concept of networks, this model is not linked to the industries in which firms operate or national competitive relations, but it involves the possibility that firms use network interactions to find resources. Therefore, the focus on resources is no longer defined in terms of possession but in terms of availability.

* * *

All analysed models have some limitations. All industry-based models, which consider industry structure as changeable by a firm's strategic behaviour or not, share the following two fundamental elements: a) the concept that inter-company relations are primarily, if not exclusively, competitive and b) the maximization of current profit as an end of a firm's strategic behaviour even if it is pursued in the medium rather than the short term.

The latter assumption is in line with the firm's ends proposed by the authors of the so-called Value Based Management (Stewart, 1991; Rappaport, 1998; Knight, 1998; Martin and Petty, 2001) in strictly economic and financial terms (EVA - Economic Value Added; TSR -Total Shareholder Return, etc.) but conflicts with other important schools of thought, especially that of Freeman (1994) who considers the interests of all firms' stakeholders.

Network-based models take collaborative relations into account and demonstrate that businesses, customers and all actors participating in production processes can benefit from these networks. These models do not strictly consider economical and financial goals and propose the "generation of value" as the firms' aim, but they do not define the concept of "value" in depth.

3. Integrated value-in-use: premises, elements and the model

3.1 Premises

The fundamental premises of the concept of integrated value-in-use originate in studies on "value for customers" carried out in marketing research. In this field, even if considered to be necessary (Zeithaml, 1988; Woodruff, 1997), a shared definition has never been reached among researchers due to diverse terminology or points of view. Some researchers, in fact, have defined customer value in terms of "what is given and what is received" (Zeithaml, 1988), while others have defined value as the trade-off between "perceived quality" and economic sacrifices (Monroe *et al.*, 1998; Dodds *et al.*, 1991). Finally, others have considered benefits and sacrifices more broadly (Lai, 1995; Costabile, 1996; Holbrook, 1999; Wang *et al.*, 2004).

The literature on the concept of value has often used the "means-end" approach (Olson and Reynolds, 1983) according to which buying behaviour represents the "means" to reach an "end" (Reynolds and Whitlark, 1995; Woodruff and Gardial, 1996; Peter *et al.*, 1999), and products are bought not for their attributes but for the consequences that the attributes can produce. Some elements of this approach can be found in the value conceptualization proposed by the Service logic (Grönroos 2008) and the Service-Dominant Logic (Vargo and Lusch, 2004), which focuses on value-in-use rather than the so-called "value-in-exchange".

To recognize the elements at the base of the concept of integrated value-in-use, it seems useful to deepen the analysis of the contributions proposed by Zeithaml, Olson and Reynolds and, lastly, Vargo and Lusch and other authors on the Service Dominant Logic.

In a study by Zeithaml (1988), which aimed to define the relationships among price, perceived quality and perceived value, a group of random buyers was studied, and the following four fundamental expressions of "value of products" were highlighted: (1) value is a low price, (2) value is what I want in a product, (3) value is the quality I receive for the price that I pay, and (4) value is what I give for what I receive. Among these, only expression 2 recalls the expected performance of the product, and thus corresponds to the definition of "utility" given by economists. In the other expressions, the value of the product originates from a comparison with "what you give", in particular, the money spent. For some, it must simply be low, while for others, it must correspond to the quality received. Hence, these definitions highlight the "value generated by the exchange" more than the value of the product itself. However, they entail the necessity of a preliminary definition of "perceived value" of the product and of all of the elements that are involved in the exchange (money, time, etc.).

In the mentioned article, Zeithaml also uses the "means-end" approach previously suggested, especially by Olson and Reynolds (1983). In a subsequent publication (2001), they specify the contents and characteristics of their model as follows: consumers pursue *values*, which, according to Rokeach (1973), are instrumental and final. Therefore, consumers are not as interested in the attributes (tangible and intangible) of a product or service as they are in the consequences (functional and psychosocial) revealed from its use. The use of a product by a consumer becomes a crucial aspect of "value for customer", especially in the new perspective of the Service Dominant Logic. Vargo and Lusch (2004a and 2008), in fact, affirm that value is generated in use (value-in-use) through a process of co-creation in which users integrate in the use of the product, defined as an "operand" resource, with other "operant"(competence, etc.) and operand (instruments, tools, etc.) resources. In this sense, value is "unique and phenomenologically determined by the beneficiary" and is "idiosyncratic, experienced and contextual"; thus, in the latest conceptualizations, scholars speak about "value in context" (Vargo *et al.*, 2008) and *value-in-social context* to highlight how the perception of value can be influenced by the social framework in which users operate (Edvardsson *et al.*, 2011).

3.2. Elements

The concept of "value-in-use"

Based on the contributions cited, value-in-use can be linked to the flow of resources involved and generated in parallel. Employed resources (operand and operant) are integrated by the user, while the functional, psychological and social consequences proposed by the Means-Ends Chain can be viewed as generated resources. Resources both employed and generated in use can be attributed to the following five general categories: strictly operational (time, space, work, tools, etc.), psychological (attitudes, stress, ambition, etc.), social (relations, trust, reputation, etc.), knowledge/competencies (professional, general, etc.) and monetary. Only the last of these is not operational because they are used/generated only in the buying/selling of the operational resources that are available on the markets.

Resources employed and generated in use do not directly represent benefits or sacrifices as suggested, for example, by Busacca and Bertoli (2012), but become them based on the user's system of values (Schwartz 2006) that determines their marks (positive or negative) and importance. Therefore, value-in-use is a flow of benefits and sacrifices that develops along with the use of goods or services and depends on the following two fundamental components: (a) the flow of resources employed and generated in use and (b) the user's system of values, which determines the mark and weight of the employed and generated resources (cfr. Stampacchia, 2013).

Adopting this definition of value-in-use, it is possible to define the following two distinct concepts: *perceived value* (of any good, service, or resource in general) and *value in exchange* (cfr. Stampacchia *et al.*, 2015). The first can be defined as the net present value of expected value-in-use of any type of resource. It is similar to the concept of utility proposed by economists but diverges from the latter because it is based on a) the expected flow of a wider range of resources and b) the role of the individual system of values. In this case, the individual system of values, influences not only the sign (positive or negative) and the importance given to each resource but also the preference for flows of resources diversely positioned in time, and the propensity to accept the risk that future effective flows could be different from the expected ones. Instead, the value in exchange is the difference between the perceived value of the resources obtained and used in exchange as follows: it corresponds to the variation the actor believes will be caused by the exchange in the (perceived) value of his set of resources.

Comparative value-in-use for stakeholders

The concepts of value that have been defined refer not only to customers but also to all firm stakeholders. In any case, the relationships between stakeholders and firms can, in fact, be considered as exchanges of resources of the different categories mentioned above. Customers use resources (money, time, knowledge, operative resources in transportation, preservation, etc.) to access the use of products and resource flows occurring in parallel. Entrepreneurs use their own resources (not only money but also relationships, psychological resources, knowledge, etc.) while they wait to gather other flows of resources (money, relationships, knowledge, self-confidence, etc.). Even stakeholders from other categories (employees, wares and money suppliers, the community in which firm operates, etc.) employ a various mix of resources (work, knowledge, image, climate of the territory, money, etc.) to gain access to a firm's offers (e.g., job positions, supply contracts, loans, productive establishments, etc.) and to the resources (money, image, social-economic development, etc.) coming from their use.

All stakeholders often have the opportunity to use their resources to gain access to and use offerings from different enterprises and institutions. Considering the available alternatives (and previous experience), they activate or renew resource exchanges with a specific firm (or organization) based on the better expected value-in-use. On the one hand, we can define as "value proposal" each offering that firms (explicitly or implicitly) address to their actual and potential stakeholders. On the other hand, resource exchanges between stakeholders and firms start and go forward (thus

becoming long-term relationships) if the former expect the generation of what we define as "comparative" or "competitive" value-in-use (given the presence of alternative sources).

Comparative value-in-use for firms

At the beginning of its activities, the firm depends on resources employed both by promoters and others initially involved in the project by the formers. Therefore, in the starting phase of business activities, the ability of firm proposals to generate comparative value-in-use for stakeholders fundamentally depends on the resources employed by the first stakeholders, including early customers.

With the development of corporate activities, an independent set of resources is created in firms that consist of resources of the same categories that compose stakeholders' set of resources (strictly operational, knowledge, psychological and relationship resources, money, etc.).

The set of resources of firms is constantly used and renewed in corporate activities; the value of its specific components at a certain time depends on the contribution they allow for the continuation of corporate activities, which in turn can generate new specific resources for the firm capable of contributing to the continuation of corporate activities in the long term. For example, the use of a brand that generates relational resources for consumers, such as reputation, image, etc., not only increase the value of trust, reputation, etc. (i.e., existing resources), but may generate further resources (money, knowledge, etc.) that can contribute to support future activities of the same firm.

The quantity and quality of new resources generated by the use of a specific resource from the company's set change according to the activities and value proposals in which the resource is used. They can also change over time if knowledge, systems of values and/or the resources available for individuals change, or in the case in which appear alternative proposals on the market that are able to generate better value-in-use.

Therefore, the value of resources for the firm is linked to their use in business activities and depends on activities and value proposals in which the resource is employed; thus, firms must pursue comparative value-in-use of resources with the aim to maximize the value of their set of resources.

As a consequence of the previous statement, on the one hand, the value of resources is not an "objective" qualification, as their rarity and imitability are, which is affirmed by Barney in the well-known VRIO model (Barney, 1991). On the other hand, although referring to the firm's set of resources, we agree with the well-known assertion of Luigi Guatri that "the maximization of firm value represents a basis for strategic choices more fruitful than the traditional objective of profit maximization" (Guatri, 1991, p. 15).

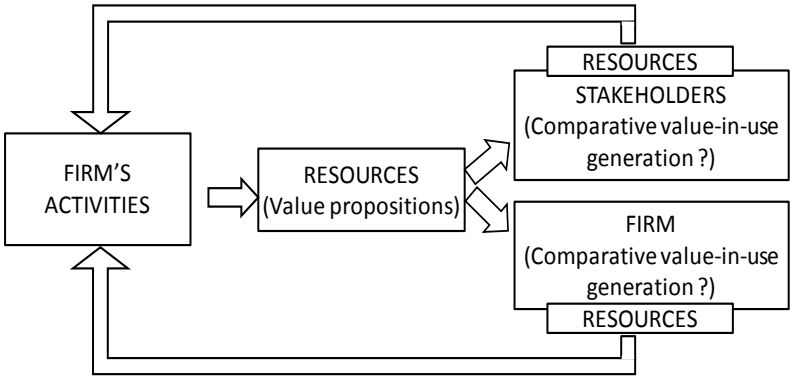
3.3 The model

Integrated value-in-use occurs when business activities and resource exchanges originating from them foresee the generation of comparative value-in-use for both stakeholders and a firm perceived as a third party that is endowed with its own activities and set of resources.

The following picture highlights the cycle of usage of resources and generation of value-in-use that upholds the continuation of a firm's activities. A firm's activities involve usage of resources provided both by stakeholders and the firm itself and generate resources, viz. value propositions for stakeholders and the firm itself. The generation of value refers to the same actors and occurs using value propositions emerging from a firm's activities. The role of each actor is twofold as follows: on the one hand, they are investors as they employ resources from their set in business processes; on the other hand, they experience the balance between resources used and generated in their own processes (either business or individual).

The resources generated in use are not only the immediate output of the process itself (normally an operand resource) but mainly all types of resources (psychological, relational, knowledge, money, etc.) that actors can experience both autonomously and in interaction with other actors. Each of these actors assigns different degrees of importance to different resources and, therefore, experiences generation of an "idiosyncratic, experiential, contextual, and meaning laden" (Vargo and Lusch, 2008, p. 7) value-in-use.

Fig. 1: Integrated value-in-use generation



Source: our elaboration based on Stampacchia (2013)

From the firm's viewpoint, the responsibility of managers is crucial in choosing and carrying out activities that will generate comparative value-in-use for both stakeholders and firms. When a firm's activities and resulting value propositions are able to generate integrated (comparative) value-in-use they ensure the continuation of relationships with all stakeholders and, therefore, of firm's activities in the long run.

The concept of integrated value-in-use as defined does not coincide with *shared value* recently proposed by Porter and Kramer (2011), defined as "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates" (p. 63). The components of the concept of shared value are different for each actor and for the firm they are similar to traditional measures of economic performances (profits, etc.).

The suggested model is instead related to the concept of *harmonious firm* recalled by Baccarani (1991) as a potential consequence of implementing total quality management in firms. The proposed model also recalls the concept of *collaborative enterprise* (Tencati and Zsolnai, 2009) suggested in the research field on Corporate Social Responsibility and based on the conditions of sustainability of a firm's activity. This perspective calls for innovative paradigms in a firm's management as proposed by other scholars in the same field of research (Perrini *et al.*, 2006; Tencati and Pogutz, 2015).

4. Integrated value-in-use generation as a criterion for strategic management of firms

The generation of current profits represents the necessary condition for monetary remuneration of shareholders but does not ensure the continuation of corporate activity. To achieve this result, adopting management criteria based on the generation of integrated (comparative) value-in-use is required, following a *win-win* logic for the various actors with which the business interacts, rather than a *win-lose* logic.

To be more effective, from this moment onward we use the expression "integrated value-in-use" as a synonym of "integrated comparative value-in-use" because the latter is more concise. The previous definition of the basic criteria of strategic management could be specified in terms of "economic value maximization of the firm's set of resources". In fact, both corporate activities aimed to generate comparative value-in-use for stakeholders and activities aimed to revitalize declining resources (or their substitution with other resources) pursue this goal. Finally, the highest level of the economic value of resources is a superior aim with respect to the specific interests of each stakeholder.

Therefore, maximization of the economic value of the firm's set of resources - as much as possible in specific market conditions - represents an adequate criterion for strategic decisions aimed at ensuring the continuation of firm activities in the long run. Nevertheless, it is preferable to re-define the basic criterion of strategic management in terms of "generation of integrated value-in-use". Adopting this view, on the one hand, we refer to the specific components on which the continuation of a firm's activities depends (generation of comparative value-in-use both for stakeholders and firm); on the other hand, even in exclusively semantic terms, we depart from previously used expressions referring to substantially different theoretical models.

The generation of integrated value-in-use represents a criterion useful to orient strategic management, especially in network-based strategic models (Stampacchia and Russo Spena, 2009). In this field of research, especially considering the ARA model (mentioned in paragraph 2.2) and networks as a set of activities carried out by diverse actors to satisfy the needs of each of them, the concept of integrated value-in-use allows firms to answer the following fundamental questions regarding their positioning (Stampacchia, 2014):

- What resources are needed to carry out different activities and which of them are more relevant for arranging proposals that can generate comparative value-in-use for stakeholders?
- What is the composition of the firm's set of resources and which ones could significantly influence corporate proposals to generate comparative value-in-use for stakeholders?
- Which types of stakeholders have values systems (and resources) that increase their own value-in-use of corporate proposals?

At the same time, according to the expected changes in knowledge, in individual systems of values and the availability of resources by stakeholders, the process of strategic planning should consider at least two additional aspects as follows:

- the composition of resource set at the end of the strategic planning period, so that the process of generation of (comparative) value-in-use for stakeholders can proceed in the years following the end of planning period;
- the activities to change the firm's resource set from the current composition to the final one.

Finally, even business control systems should be updated to focus not only the fulfilment of current profits in line with preordained expectations but mainly the capability of a firm's activities and the resulting value propositions to generate integrated (comparative) value-in-use both currently and in the future.

5. Implications for management

The orientation to generate integrated value-in-use can help the understanding of the positive results shown by many firms in the last decades.

During the late1980s, for example, commercial offers from FIAT were no longer able to generate comparative value-in-use for their traditional customers nor did the company possess adequate resources to close the gap; many categories of stakeholders (shareholders, backers, employees, communities, etc.) were, in fact, unwilling to accept rewards similar to those adopted by competitors who were based primarily in Eastern Asia and Europe. Thus, FIAT underwent a process of change, focusing both on the value propositions and the resources characterizing its assets, including relationships with all the stakeholders. Production locations were changed to areas that are historically known for manufacturing automobiles rather than moving towards the emerging East; knowledge and resources used in the process were shifted towards the model called World Class Manufacturing (WCM) and towards new tools for marketing, planning, etc.; at the same time, the firm renewed its relationships with both suppliers - involving them in the WCM programme - and employees. Finally, the processes of firm resource set renewal are well underway, i.e., changes in a firm's knowledge and competencies from lower gas consumption to lower emissions engines.

Other cases could be mentioned, especially regarding the network-based rather than the sector-based view. IBM, for example, shifted from computer

manufacturing to information technology services, which is in line with its resource set, which, moreover, has continuously been updated, keeping the capabilities of its value propositions that can generate comparative value-in-use for customers and all actors in its offering process.

Other enterprises aim to generate comparative value-in-use for customers and all stakeholders, focusing on specific operations with a considerable number of downstream activities; thus, they both reduce the risk of specialization and gain learning and economies of scale that allow their business customers to experience prices and service conditions that are better than the ones that can be achieved by performing the same activities on their own.

6. Implications for research

In the management and marketing literature, significant contributions have been developed in recent years that seek new models of strategic analysis; however, these models have reviewed specific elements from the traditional perspective. Although the scholars have noted limitations, to date, a proposal of an integrated whole of elements and relations able to support a new systematic framework for management studies has not been established.

The Resource-Based Theory (Barney, 1991), for example, has contributed greatly but has not been linked to the theory of value. In marketing analysis, service-dominant logic (Vargo and Lusch 2008) has grown significantly, but no links to the theory of management have been found. On the one hand, the marketing literature, has often proposed investigating not only the customers but also the customer's customer (Gummesson 2011); on the other hand, operation management studies have made the most references to the "supply chain" (Croom *et al.*, 2000; Mentzer *et al.*, 2001; Van Weele, 2005); hence, both research streams have never been linked to highlight that the two can be framed in network theories. Even the "stakeholder theory" (Freeman, 1994) has been greatly followed, but no evidence has been provided regarding its contrast with traditional theories of corporate goals, particularly as they are mainly aimed at current economic results and their possible maximization.

This paper offers some elements that can represent a starting point for building a new construct that is in line with reality and that is also able to interpret business behaviours in the past. In this view, there is considerable work to be performed regarding both the proposal of new models and the assessment of their consistency in business practice.

In this perspective, maintaining the traditional concept of efficiency as the relationship between output gained and the quantity of resources used, while effectiveness is considered the ability of a company's output to generate value-in-use, a basic issue likely concerns the orientation of new models towards effectiveness or efficiency. In this sense, Richard Normann (2001) concisely stated in "Reframing business" that "'Economics', of course, is not the science of money but the science of the effective use and allocation of resources" (p. 7); this implies that effectiveness is placed before efficiency.

References

ABELL D.F. (1980), *Defining the Business. The Strategy Point of Strategic Planning*, Prentice-Hall, Englewood Cliffs, New Jersey.

ANDERSON J.C., HAKANSSON H., JOHANSON J. (1994), "Dyadic business relationships within a business network context", *Journal of Marketing*, vol. 58, n. 4, pp. 1-15.

ANDREWS K.R. (1971), *The concept of corporate strategy*, Homewood, Irwin, Illinois.

ANSOFF H.I. (1965), "The Firm of the Future", *Harvard Business Review*, vol. 43, n. 5, pp. 162-174.

AXELSSON B. (1992), "Corporate Strategy Models and Networks - Diverging Perspectives", Eds. Axelsson B., Easton G., in I*ndustrial Networks: A New View of Reality*, Routledge, London, UK, pp. 184-204.

BACCARANI C. (1991), "Qualità e governo dell'impresa", *Quaderni di Sinergie,* n. 7, pp. 37-56

BAIN J.S. (1956), *Barriers to New Competition*, Cambridge, Harvard University Press, MA.

BARALDI E., BRENNAN R., HARRISON D., TUNISINI A., ZOLKIEWSKI J. (2007), "Strategic thinking and the IMP approach: A comparative analysis", *Industrial Marketing Management*, vol. 36, n.7, pp. 879-894.

BARNEY J.B. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, vol. 17, n. 1, pp. 99-120.

BUSACCA B., BERTOLI G. (2012), *Customer value: soddisfazione, fedeltà, valore*, Egea, Milano.

CAMARINHA-MATOS L.M. (2009), "Collaborative networked organizations: Status and trends in manufacturing", *Annual Reviews in Control,* vol. 33, n. 2, pp. 199-208.

CAVES R.E., PORTER M.E. (1977), "From entry barriers to mobility barriers: Conjectural decisions and contrived deterrence to new competition", *The Quarterly Journal of Economics*, vol. 91, n. 2, pp. 241-261.

CHANDLER JR. A.D. (1962), *Strategy and Structure, Chapters in the History of the American Industrial Enterprise*, Mit Press, Cambridge.

CHEN S.S., MONROE K.B., LOU Y., (1998),"The effects of framing price promotion messages on consumers' perceptions and purchase intentions", *Journal of Retailing*, vol. 74, n. 3, pp. 353-372.

COLURCIO M., EDVARDSSON B., CARIDÀ A. (2014), "Resource integration in innovation processes: a literature review", *Proceedings of the 5th International Conference on Applied Human Factors and Ergonomics AHFE 2014*, Kraków, Poland 19-23 July 2014, Edit by Ahram T., Karwowski W. and Marek T..

COSTABILE M. (1996), *Misurare il valore per il cliente*, Utet, Torino.

CROOM S., ROMANO P., GIANNAKIS M. (2000), "Supply chain management: an analytical framework for critical literature review", *European Journal of Purchasing and Supply Management*, vol. 6, n. 1, pp. 67-83.

DODDS W.B., MONROE K.B., GREWAL D. (1991), "Effects of price, brand, and store information on buyers' product evaluations", *Journal of marketing research*, vol. 28, n. 3, pp. 307-319.

EDVARDSSON B., TRONVOLL B., GRUBER T. (2011), "Expanding understanding of service exchange and value co-creation: a social construction approach", *Journal of the Academy of Marketing Science*, vol. 39, n. 2, pp. 327-339.

FORD D., MOUZAS S. (2008), "Is there any hope? The idea of strategy in business networks", *Australasian Marketing Journal*, vol. 16, n. 1, pp. 64-75.

FREEMAN R.E. (1994), "The politics of stakeholder theory: Some future directions", *Business ethics quarterly*, vol. 4, n. 4, pp. 409-421.

GRANT R.M. (1991), "The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation", *California Management Review*, vol. 33, n. 3, pp. 114-135.

GRÖNROOS C. (2008), "Service logic revisited: who creates value? And who co-creates?", *European Business Review*, vol. 20, n. 4, pp. 298-31.

GUATRI L. (1991), *La teoria di creazione del valore*, Egea, Milano.

GULATI R., GARGIULO M. (1999), "Where do interorganizational networks come from?", *American Journal of Sociology*, vol. 104, n. 5, pp. 1439-1493.

GUMMESSON E. (2011), *Total relationship marketing*, Butterworth-Heinemann, London.

HÅKANSSON H., JOHANSON J. (1992), "A model of industrial networks", in Axelsson B., Easton G., (eds), *Industrial Networks: A New View of Reality*, Routledge, London, pp. 28-34.

HÅKANSSON H., SNEHOTA I. (1989), "No Business is an Island: The Network Concept of Business Strategy", *Scandinavian Journal of Management*, vol. 4, n. 3, pp. 187-200.

HÅKANSSON H., SNEHOTA I. (1995), *Developing relationships in business networks*, International Thomson Press, Boston.

HAMEL G., PRAHALAD C.K. (1989), "Strategic intent", Harvard Business Review, May-June, pp. 63-76.

HAX A.C., MAJLUF N.S. (1996), *The strategy concept and process*, Prentice Hall, Upper Saddle River, NJ.

HOLBROOK M.B. (1999), *Consumer value: a framework for analysis and research*, Psychology Press, Hove United Kingdom.

HUNT M.S. (1972), *Competition in the major home appliance industry, 1960-1970*, Harvard University.

JACQUEMIN A.P., DE JONG H.V. (1977), *European Industrial Organization*, MacMillan, London.

JARILLO J.C. (1988), "On strategic networks", *Strategic Management Journal*, vol. 9, n. 1, pp. 31-41.

KIM L., LIM Y. (1988), "Environment, generic strategies, and performance in a rapidly developing country: A taxonomic approach", *Academy of Management Journal*, vol. 31, n. 4, pp. 802-827.

KNIGHT J.A. (1998), *Value based management: Developing a systematic approach to creating shareholder value*, McGraw-Hill, New York.

LAI A.W. (1995), "Consumer values, product benefits and customer value: a consumption behavior approach", *Advances in Consumer Research*, vol. 22, n. 1, pp. 381-381.

LEARNED E.P., CHRISTENSEN C.R., ANDREWS K.R., GUTH W.D. (1969), *Business Policy: Text and Cases*, Homewood, Irwin, IL.

LORENZONI G., BADEN FULLER C. (1995), "Creating a Strategic Center to Manage a Web of Partners", *California Management Review*, vol. 37, n. 3, Spring.

MARTIN J.D., PETTY J.W. (2001), *Value based management: The Corporate response to the shareholder revolution*, Oxford University Press.

MASON E.S. (1939), "Price and production policies of large-scale enterprise", *The American Economic Review*, vol. 29, n. 1, pp. 61-74.

MATTSSON L.G., JOHANSON J. (1992), "Network positions and strategic action: an analytical framework", in Axelsson B., Easton G. (Eds.), *Industrial networks. A new view of reality*, Routledge, London, pp. 205-217.

MAUBORGNE R., KIM W.C. (2005), *Blue Ocean Strategy-How to Create Uncontested Market Space and Make Competition Irrelevant*, Mass, Harvard Business School Press., Boston.

MÖLLER K.K., HALINEN A. (1999), "Business relationships and networks: Managerial challenge of network era", *Industrial Marketing Management*, vol. 28, n. 5, pp. 413-427.

MYERS J. (2006), "Future value systems: Next generation economic growth engines & manufacturing", in Choi B.W., Nagy D. (Eds.), *IMS vision forum*, IMS International, Seoul.

MENTZER T., DEWITT W., KEEBLER J.S., MIN S., NIX N.W., SMITH C.D., ZACHARIAZ G. (2001), "Defining Supply Management", *Journal of Business Logistics*, vol. 22, n. 2, pp. 1-25.

NONAKA I., TAKEUCHI H. (1995), *The knowledge creating company*, Oxford, NY.

NORMANN R. (2001), *Reframing business: When the map changes the landscape*, John Wiley & Sons, Chichester.

NORMANN R., RAMIREZ R. (1992), "From value chain to value constellation: Designing interactive strategy", *Harvard Business Review*, vol. 71, n. 4, pp. 65-77.

OLSON J.C., REYNOLDS T.J. (1983), "Understanding consumers' cognitive structures: implications for advertising strategy", (edited by Percy L., Woodside A.), *Advertising and consumer psychology*, Massachusetts Lexington Books, pp. 77-90.

PENROSE E.T. (1959), *The Theory of Growth of the Firm*, Basil Blackwell, London.

PERRINI F., POGUTZ S., TENCATI A. (2006), "Corporate social responsibility in Italy: State of the art.", *Journal of Business Strategies*, vol. 23, n. 1, p. 65.

PETER J.P., OLSON J.C., GRUNERT K.G. (1999), *Consumer behavior and marketing strategy* (pp. 122-123), McGraw-Hill, London.

PETERAF M.A. (1993), "The cornerstones of competitive advantage: A resource-based view", *Strategic Management Journal*, vol. 14, n. 3, pp. 179-191.

PORTER M.E. (1980), *Competitive strategy: Techniques for analyzing industries and competition*, Free Press, New York.

PORTER M.E., KRAMER M.R. (2011), "Creating shared value", *Harvard Business Review*, vol. 89, n. 1/2, pp. 62-77.

RAPPAPORT A. (1998), *Creating shareholder value. (2 ed)*, Free Press, New York.

REYNOLDS T.J., OLSON J.C. (Eds.), (2001), *Understanding consumer decision making: The means-end approach to marketing and advertising strategy*, Psychology Press.

REYNOLDS T.J., WHITLARK D.B. (1995), "Laddering data to communications strategy and advertising practice", *Journal of Advertising Research*, vol. 35, n. 4, pp. 9-18.

ROKEACH M. (1973), *The nature of human values (Vol. 438)*, Free press, New York.

SCHERER F.M. (1980), *Industrial Market Structure and Economic Performance*, Houghton Mifflin, Boston.

SCHWARTZ S.H. (2006), "Basic human values: Theory, measurement, and applications", *Revue française de sociologie*, vol. 47, n. 4, pp. 249-288.

STAMPACCHIA P. (2013), *Le imprese nelle reti del valore - Nuove basi metodologiche per la gestione. Vol. I*, Liguori, Napoli.

STAMPACCHIA P. (2014), *Le imprese nelle reti del valore - Strategie e processo di direzione. Vol. II*, Liguori, Napoli.

STAMPACCHIA P., COLURCIO M., EDVARDSSON B., COPPOLA M. (2015), "Value in use and in (social) context. Analysing how social actors co-create value" in *Proceedings of "The 2015 Naples Forum on Service"*, ISBN: 979-12-200-0486-2.

STAMPACCHIA P., RUSSO SPENA T. (2009), "Management in a network context: a new model", *Quaderni di Sinergie*, n. 16, pp. 245-268.

STEWART G.B. (1991), *The quest for value*, NY, Harper Business.

TEECE D.J., PISANO G., SHUEN A. (1997), "Dynamic capabilities and strategic management", *Strategic Management Journal*, vol. 18, n. 7, pp. 509-533.

TENCATI A., POGUTZ S. (2015), "Recognizing the limits: Sustainable development, corporate sustainability and the need for innovative business paradigms", *Sinergie*, vol. 33, n. 96, pp. 37-55.

TENCATI A., ZSOLNAI L. (2009), "The collaborative enterprise", *Journal of Business Ethic*s, vol. 85, n. 3, pp. 367-376.

TIKKANEN J., HALINEN A. (2003), "Network Approach to Strategic Management - Exploration to the Emerging Perspective", *Paper presented at the 19th IMP Conference*, Lugano.

VAN WEELE A.J. (2005), *Purchasing and Supply Chain Management: Analysis, Planning and Practice*, Thomson International, London.

VARGO S.L. (2008), "Customer integration and value creation Paradigmatic Traps and Perspectives", *Journal of Service Research*, vol. 11, n. 2, pp. 211-215.

VARGO S.L., LUSCH R.F. (2004b), "The four services marketing myths: Remnants from a manufacturing model", *Journal of Service Research*, vol. 6, n. 4, pp. 324-335.

VARGO S.L., LUSCH R.F. (2004a), "Evolving to a new dominant logic for marketing", *Journal of Marketing*, vol. 68, n. 1, pp. 1-17.

VARGO S.L., LUSCH R.F. (2008), "Service-dominant logic: continuing the evolution", *Journal of the Academy of Marketing Science*, vol. 36, n. 1, pp. 1-10.

VARGO S.L., MAGLIO P.P., AKAKA M.A. (2008), "On value and value co-creation: A service systems and service logic perspective", *European Management Journal*, vol. 26, n. 3, pp. 145-152.

WANG Y., PO LO H., CHI R., YANG Y. (2004), "An integrated framework for customer value and customer-relationship-management performance: a customer-based perspective from China", *Managing Service Quality: An International Journal*, vol. 14, n. 2/3, pp. 169-182.

WERNERFELT B. (1984), "A Resource-based view of the firm", *Strategic Management Journal*, vol. 5, n. 2, pp. 171-180.

WOODRUFF R.B. (1997), "Customer value: the next source for competitive advantage", *Journal of the academy of marketing science*, vol. 25, n. 2, pp. 139-153.

WOODRUFF R.B., GARDIAL S. (1996), *Know your customer: new approaches to customer value and satisfaction*, Blackwell Business, Cambridge, MA.

ZAHEER A., GULATI R., NOHRIA N. (2000), "Strategic networks", *Strategic Management Journal*, vol. 21, n. 3, p. 203.

ZEITHAML V.A. (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence", *Journal of Marketing*, vol. 52, n. 3, pp. 2-22.

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L'impiego del EFQM Business Excellence Model nella misura delle performance degli approvvigionamenti. Uno studio quantitativo

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Abstract

***Obiettivo del paper**: Il presente lavoro si pone l'obiettivo di testare uno strumento di self-assessment ispirato all'EFQM Business Excellence Model e sviluppato per supportare le aziende nel miglioramento continuo dei loro processi di approvvigionamento.*

***Metodologia**: Attraverso un'analisi quantitativa condotta su un campione di 118 aziende, estratte da un database che raccoglie gli esiti di un processo di self-assessment delle funzioni approvvigionamenti di aziende multinazionali, è stata condotta prima una exploratory factor analysis, seguita da una una path analysis.*

***Risultati**: l'articolo dimostra come il sistema di enablers e results che caratterizza l'EFQM Business Excellence Model possa costituire un valido riferimento per la valutazione del grado di maturità degli enti preposti alla gestione dei processi di sourcing e per guidare il complesso di azioni che possono condurre ad un miglioramento delle performance negli approvvigionamenti.*

***Limiti della ricerca**: lo strumento di self-assessment adottato in questo studio è basato sull'uso di grandezze misurate su scale di Likert. In prospettiva, è auspicabile intraprendere ulteriori indagini empiriche per verificare l'efficacia del modello anche attraverso indicatori quantitativi.*

***Implicazioni pratiche**: Il modello proposto si dimostra un efficace strumento per evidenziare il contributo della funzione approvvigionamenti al conseguimento dei risultati aziendali. Inoltre l'impiego di strumenti di self-assessment può facilitare progetti di benchmarking interni ed esterni.*

***Originalità del paper**: il principale elemento di originalità del lavoro consiste nel fatto di applicare una metodologia, consolidata nei contesti di quality management, nei processi di approvvigionamento, area nella quale il dibattito sui sistemi di misura delle performance appare rilevante per la crescente rilevanza della funzione.*

Parole chiave: approvvigionamenti; EFQM Business Excellence Model; performance measurement; self-assessment

***Purpose of the paper**: This paper aims at testing a self-assessment tool based on the EFQM Business Excellence Model, with the purpose of supporting companies in the continuous improvement of their procurement process.*

***Methodology**: We have carried out an exploratory factor analysis and then a path analysis on a sample of 118 companies, selected from a large database gathering the outcomes of a self-assessment process run in the procurement departments of multinational companies.*

Results: the paper shows that the system of "enablers" and "results", developed by the EFQM Business Excellence Model, can be a solid reference model to evaluate the maturity level of the Purchasing Department and to drive the investments and actions aimed at improving its performances.

***Limitations**: the self-assessment tool discussed in this study is based on the use of questionnaire items assessed on Likert scales. Thus, future empirical investigations should be conducted to confirm the validity of the EFQM model in the procurement area also through quantitative indicators.*

***Managerial Implications**: the self-assessment tool presented in this paper is an effective approach to observe the correlation between operational actions/decisions of the Purchasing Department and the economic performance of the company; moreover it is an approach that can be easily implemented over time and that can facilitate benchmarking activities (among companies, branches of the same enterprise etc.).*

***Originality of the paper**: the originality refers to the use of a methodology, grounded in the quality management practices and literature, in the procurement processes, where the discussion on the Performance Measurement Systems is still open.*

Key words: procurement; EFQM Business Excellence Model; performance measurement; self-assessment

1. Introduzione

Il tema della misura delle prestazioni nell'area delle *operations* e del *supply chain management* è ampiamente dibattuto ed è stato osservato secondo differenti prospettive (Belvedere, 2015; Gunasekaran e Kobu, 2007; Neely, 2005; Bourne *et al.*, 2002; Neely *et al.*, 2000; 1995). Molti studi si sono soffermati sulle singole metriche che possono essere adottate per quantificare le *performance* conseguite (Vickery *et al.*, 1993; Maskell, 1991). Altri contributi si sono focalizzati sugli aspetti rilevanti della progettazione dei sistemi di misurazione delle *performance* - *Performance Measurement System* (PMS), ovvero del *set* di indicatori potenzialmente impiegabili da una organizzazione per monitorare i propri risultati e avviare piani di miglioramento nelle *operations* aziendali (Neely *et al.*, 2001; Kaplan e Norton, 2000; 1996; Lynch e Cross, 1991). Una terza area di indagine si riferisce ai processi di misurazione delle *performance*, intesi come l'insieme di azioni che una azienda intraprende non solo per progettare il proprio PMS, ma anche per realizzarlo in concreto e utilizzarlo per guidare i processi decisionali, orientandoli al miglioramento delle prestazioni della propria organizzazione (Neely *et al.* 2000).

All'interno di questi filoni di ricerca, diversi studi hanno evidenziato quali dimensioni prestazionali chiave debbano essere valutate e quando appare opportuno valutare i miglioramenti di un sistema produttivo (Vickery *et al.*, 1993; Maskell, 1991). Inoltre, numerosi contributi di ricerca hanno proposto e testato diversi PMS, quali quelli basati su *balanced-scorecard*, o altri noti come la *SMART Pyramid* o il PRISM model, solo per menzionarne alcuni, i quali costituiscono utili riferimenti per progettare e realizzare PMS a livello di *shop-floor operations* (Neely *et al.*, 2001; Kaplan e Norton, 2000; 1996; Lynch e Cross, 1991). Per contro, il tema del *performance measurement* nell'ambito delle funzioni approvvigionamenti mantiene un

elevato interesse tra i ricercatori e gli studiosi della disciplina. Non sembra, infatti, esservi un consenso in merito ai profili prestazionali chiave, da quantificarsi attraverso appropriate metriche, e i PMS sino ad ora proposti per questa funzione non hanno fugato tutti i dubbi e le perplessità segnalate nel dibattito in corso (Hofmann *et al.*, 2014). Nel 2014, CAPS Research ha affermato che la spesa totale media per l'acquisto di materiali e servizi è pari a circa il 52% del fatturato delle aziende industriali, e valori simili sono stati riscontrati anche in quelle di servizi (Grando *et al.*, 2006). Questi valori non fanno che sottolineare la rilevanza delle funzioni approvvigionamenti quali *driver* nei processi di creazione di valore (Migliaccio, 2011; Tunisini, 2002). Tuttavia è stato da più parti segnalato come la possibilità di conseguire tali obiettivi è connessa alla attuazione di *best practices*, i cui effetti positivi sull'economia delle imprese raramente si manifestano nel breve termine e generalmente si possono apprezzare solo nel medio periodo (Signori, 2011; Gonzàlez-Benito, 2007; Carr e Pearson, 2002).

Stante, infatti, le caratteristiche peculiari della funzione approvvigionamenti, quale anello iniziale di una catena di *operations* composta da molteplici attori interni che conducono fino al cliente finale, la progettazione di appropriati PMS dovrebbe essere focalizzata su meccanismi di creazione di valore e capacità di apprezzamento di risultati nel medio-lungo termine, più che su obiettivi e risultati di breve termine (Hofmann *et al.*, 2014). Tale considerazione conduce alla necessità di adottare un *framework* di riferimento che consenta di mettere in luce in che modo la funzione approvvigionamenti sia in grado di soddisfare i fabbisogni dei propri clienti interni e, per questa via, contribuire alla creazione di valore.

In tale prospettiva, lo studio qui proposto intende testare se l'*EFQM Business Excellence Model* possa essere impiegato quale *framework* di riferimento per sviluppare un sistema di *self-assessment* della funzione approvvigionamenti. Questo modello è, infatti, stato impiegato in diversi contesti, sia manifatturieri sia di servizi (Calvo-Mora *et al.*, 2005; Hides *et al.*, 2004; Samuelsson e Nilsson, 2002; Nabitz *et al.*, 2000), nei quali è stato adottato non solo per migliorare la qualità di prodotto, ma anche quale strumento utile a supportare processi di miglioramento continuo.

Nel seguito di questo paper, pertanto, verranno in primo luogo sintetizzati i contributi di letteratura rilevanti con riferimento al tema della misura delle *performance* negli approvvigionamenti e alle caratteristiche e applicazioni dell'*EFQM Business Excellence Model*. Quindi illustreremo gli esiti di un'analisi empirica volta a valutare l'appropriatezza di tale modello quale *framework* utilizzabile nei processi di *self-assessment* della funzione approvvigionamenti. Infine si delineeranno le principali implicazioni manageriali del lavoro, riportando evidenze di aziende che hanno adottato tale approccio con successo.

2. Analisi della letteratura

La misura delle performance negli approvvigionamenti

Le *performance* della funzione approvvigionamenti è tradizionalmente declinata in due profili principali (Hofmann *et al.*, 2014; Van Weele, 1994):

- *efficacia*, che sintetizza la capacità di conseguire obiettivi di costi, *qualità e servizio logistico*;
- *efficienza*, che attiene all'impiego ottimale delle risorse disponibili, attraverso prassi e procedure appropriate.

La prima categoria fa riferimento agli attributi prestazionali propri dei fornitori selezionati dalla funzione approvvigionamenti e alle condizioni contrattuali che ne regolano i rapporti di scambio; essi, quindi, possono essere facilmente misurati attraverso le molteplici metriche sviluppate dalla dottrina e dalla prassi manageriale, quali la puntualità e la velocità di consegna, i tassi di difettosità, i costi unitari o i *savings* confrontati con i *budget* assegnati per l'acquisto di materiali e servizi (Belvedere, 2015; Sciommeri e D'Ascenzo, 2009; Simone, 2011; Grando e Sianesi, 1991).

La seconda viene generalmente analizzata attraverso indicatori che possono essere considerati alla stregua di proxy di un efficiente impiego delle risorse disponibili nella funzione in oggetto, quali, ad esempio, il numero di procedure formali in essere, il *budget* assegnato alla funzione stessa. Tuttavia, come segnalato da alcuni Autori, nel progettare un PMS, è opportuno identificare un numero limitato di indicatori di controllo, con l'obiettivo di focalizzare l'azione manageriale su un ridotto *set* di priorità (Neely, 2005; Neely *et al.*, 1995). La letteratura sugli approvvigionamenti suggerisce che le aziende debbano comprendere a fondo il ruolo della funzione all'interno della propria organizzazione al fine di selezionare gli indicatori più appropriati e progettare un coerente PMS. In tal senso sono state identificate tre opzioni principali, definite, rispettivamente, *Efficiency-oriented PMS, Effectiveness-oriented PMS* e *Multi-objectives PMS* (van Weele, 1994; Dumond, 1991). La prima tipologia può essere utilmente impiegata in contesti nei quali la funzione svolge principalmente attività e processi ripetitivi; la seconda, appare appropriata per aziende nelle quali la funzione approvvigionamenti assume un ruolo strategico e viene valutata in ragione della sua capacità di assicurare elevata redditività, soddisfazione dei clienti interni e *partnership* di lungo periodo con i fornitori chiave; la terza tipologia di PMS abbraccia i profili prestazioni sia di efficacia sia di efficienza e viene considerata la modalità più coerente per monitorare le prestazioni complessive della funzione approvvigionamenti. Tuttavia, per quanto sotto il profilo teorico i sistemi di misura delle *performance multi-objectives* appaiano i più completi, nella pratica si è dimostrato come essi soffrano di defocalizzazione (Belvedere e Gallmann, 2005). Conseguentemente, sebbene sia stata elaborata una infinità di misure per quantificare gli specifici attributi che connotano la *performance* della funzione approvvigionamenti, il tema maggiormente dibattuto attiene proprio alla progettazione dei PMS (Hofmann *et al.*, 2014). Nell'ambito della letteratura manageriale, molti Autori concordano sul criterio generale che deve informare il processo di progettazione del Sistema di misurazione delle *performance*, evidenziando la necessità di un allineamento tra obiettivi strategici aziendali e obiettivi funzionali da perseguire (Gunasekaran e Kobu, 2007; McAdam e Bailie, 2002; Signori, 2011; Wisner e Fawcett, 1991). Ciò implica che, a livello funzionale, i PMS dovrebbero focalizzarsi su quelle prestazioni maggiormente coerenti con la *value proposition* aziendale. Tuttavia, tale assunto generale non è facilmente applicabile nella funzione

approvvigionamenti, dovendo quest'ultima interagire con una molteplicità di clienti interni, che frequentemente esprimono fabbisogni conflittuali. Pertanto, identificare il contributo della funzione approvvigionamenti ai processi di creazione di valore è in realtà assai complesso (Hofmann *et al.*, 2014). Sussistono, infatti, diverse evidenze empiriche che dimostrano che, per quanto appaia incontestabile il contributo offerto dalle competenze e prassi sviluppate dalla funzione approvvigionamenti alla generale *performance* aziendale, non è affatto semplice determinare la correlazione e i rapporti causali sussistenti tra questi due elementi (Gonzàlez-Benito, 2007; Carr e Pearson, 2002). Con lo scopo di svolgere indagini su tale nesso causale, e non essendo praticamente possibile declinare dettagliatamente tutte le *performance* associabili alla funzione in oggetto, la letteratura ha distinto tra *performance drivers* e *performance outcomes* (Easton *et al.*, 2002; Ellram e Liu, 2002). Ciò appare coerente con quanto osservato da molti ricercatori che si sono dedicati allo studio dei PMS, secondo i quali l'apprezzamento della *performance* di un processo (quali quelli governati dalla funzione approvvigionamenti) richiede di identificare *lagging and leading indicators* (Blome *et al.*, 2014; Bititci *et al.*, 2013; Alfaro *et al.*, 2007), ove i primi sono espressione delle *performance* in *output* attese, quali conseguenza di una determinata condotta e che, nel caso dei processi di approvvigionamento, possono consistere nella creazione di valore per l'intera azienda e i suoi *stakeholder*; i secondi, invece, si riferiscono agli antecedenti (o *driver*) di tali *output*, che devono essere gestiti e (possibilmente) misurati con l'obiettivo di rafforzare i processi che consentano di conseguire i risultati attesi. Sotto tale profilo, sembra opportuno segnalare che il dibattito sui *leading indicators*, in particolare, si collega a quello delle *procurement capabilities*, spesso considerate gli antecedenti delle procurement *performance*, per quanto risultino assai difficilmente quantificabili (Mishra *et al.*, 2013).

Valutare le *performance* degli approvvigionamenti rispetto agli *outcome* e *drivers* è inoltre coerente con la letteratura sul *performance measurement* nelle aziende di servizi. La funzione approvvigionamenti, di fatto, eroga un servizio a numerosi clienti interni e, in tale prospettiva, la distinzione sopra riportata tra *drivers* e *outcomes* appare coerente con il PMS proposto per le aziende di servizi da Fitzgerald *et al.* (1991), che classifica le misure in *results* e *determinants*, ritenendo tale approccio più coerente con le specificità dei processi di erogazione di servizi (Belvedere, 2014; Brignall e Ballantine, 1996; Silvestro *et al.*, 1992).

Anche nella letteratura di *management accounting* si rinvengono contributi utili alla progettazione dei PMS degli approvvigionamenti. Diversi Autori hanno sottolineato che una scelta chiave in sede di progettazione dei PMS risiede nell'oggetto di misurazione (Simons, 2000; Anthony, 1988) e che il *management* deve essere consapevole dei processi che trasformano *input* (materiali, informazioni, lavoro) in *output* (prodotti e servizi). I PMS possono, infatti, essere focalizzati su misure di *input* o di *output* (Grando *et al.*, 2007; Simons, 2000). L'"*output*" della funzione approvvigionamenti risiede nella fornitura di servizi ai propri clienti interni, che generalmente esprimono fabbisogni diversificati. Al fine di assicurare tali risultati, è necessario monitorare l'efficacia con cui vengono svolti i processi di approvvigionamento e assicurare l'esistenza di condizioni abilitanti (*input*),

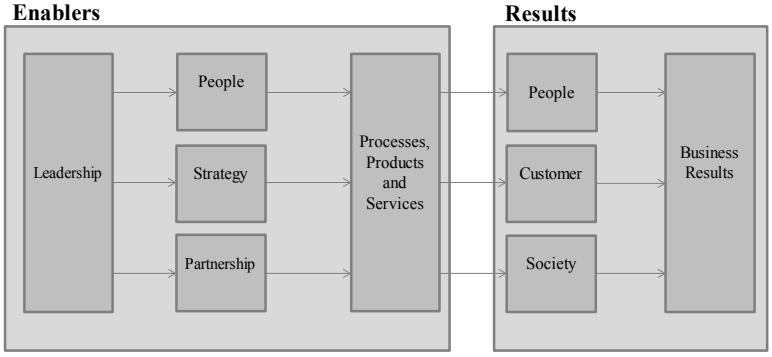
quali adeguate competenze manageriali e la disponibilità di personale motivato e preparato.

Alla luce della letteratura sopra sintetizzata è possibile affermare che un efficace PMS, dedicato alla funzione approvvigionamenti, dovrebbe considerare congiuntamente sia una serie di *outcome*, in grado di rappresentare una ampia varietà di *performance* operative e finanziarie, sia una pluralità di enabling factors, espressione delle risorse e dei processi impiegati.

EFQM Business Excellence Model quale framework di self-assessment

L'*EFQM Business Excellence Model*, elaborato e proposto dall'European Foundation for Quality *Management* quale *framework* di riferimento per il proprio premio della qualità sin dai primi anni '90, è stato frequentemente impiegato in azienda quale utile strumento di *self-assessment* (Yadav e Sagar, 2013; Ritchie e Dale, 2000; EFQM, 1991). Il modello, descritto nella Figura 1, poggia su una architettura logica formata da *results*, articolati in quattro categorie, che sono il prodotto di un *set* di cinque *enablers* (EFQM, 1991). Per quanto non identifichi specifici approcci manageriali per raggiungere *performance* eccellenti nel tempo, il modello assume per un verso l'esistenza di un legame causale tra *enablers* e *results* e, per un altro, che il complesso di elementi che li compongono siano strettamente interrelati tra loro. Dal punto di vista metodologico, tali relazioni sono state testate e confermate in una serie di studi, che hanno dimostrato attraverso ricerche basate su *survey* che il razionale sottostante il modello proposto è ampiamente sostenuto dall'evidenza empirica (Calvo-Mora *et al.*, 2015; Gomez Gomez *et al.*, 2011; Bou-Llusar *et al.*, 2009; Calvo-Mora *et al.*, 2005).

Fig. 1: L'EFQM Business Excellence Model



Fonte: EFQM, 2013.

L'*EFQM Business Excellence Model* è stato ampiamente utilizzato da molte organizzazioni con l'obiettivo di rafforzare e mantenere non solo prestazioni di qualità, ma anche *performance* aziendali più generali, frutto di approcci manageriali fondati sulle logiche del miglioramento continuo (Bolboli e Reiche, 2015; Gomez Gomez *et al.*, 2011; Samuelsson e Nilsson,

2002; Ritchie e Dale, 2000). È stato inoltre affermato che l'adozione di tale modello può fornire un valido ausilio nella strutturazione di sistemi organizzativi e manageriali orientati al conseguimento di miglioramenti prestazionali sia nel breve periodo, quale strumento di *benchmarking* operativo infra- ed inter-aziendale, sia in orizzonti più estesi, quale guida nella ricerca di significativi incrementi nelle *performance* reddituali complessive (Samuelsson e Nilsson, 2002; Ritchie e Dale, 2000). La sua efficacia nel guidare scelte di miglioramento continuo è testimoniata dal suo esteso impiego in differenti settori, dal manifatturiero a quello dei servizi, segnatamente nella sanità e nell'education (Calvo-Mora *et al.*, 2005; Hides *et al.*, 2004; Senese, 2003; Samuelsson e Nilsson, 2002; Nabitz *et al.*, 2000; Sargiacomo, 2000). In tutte queste esperienze, l'*EFQM Business Excellence Model* è stato impiegato quale metodologia per condurre processi di *self-assessment* e di *performance measurement*, finalizzati a pianificare e realizzare progetti di miglioramento. Il modello, infatti, consente di calcolare un punteggio complessivo, espressione del livello di maturità di una organizzazione, frutto di giudizi quantitativi espressi dai valutatori per ciascuno dei criteri e sotto-criteri in cui si articola. Nell'esprimere i propri giudizi, i valutatori considerano non solo i miglioramenti ottenuti nelle diverse aree di analisi, ma anche le azioni intraprese per conseguire detti miglioramenti, nonché l'ampiezza e la profondità con cui esse sono state adottate ai diversi livelli dell'organizzazione (Rusjan, 2005; Leonard e McAdam, 2002). Si è inoltre osservato che quando questo *framework* viene impiegato in progetti di *self-assessment*, esso diviene un efficace strumento per sostenere i processi di pianificazione strategica ed i correlati sistemi di controllo, facilitando la traduzione delle linee guida di ordine strategico in obiettivi operativi che possono più facilmente essere comunicati all'intera organizzazione (Leonard e McAdam, 2002).

3. Metodologia di indagine

Sulla base delle evidenze di letteratura sopra richiamate, con questo studio si intende testare se l'*EFQM Business Excellence Model* possa essere efficacemente impiegato quale *framework* in grado di misurare le *performance* della funzione approvvigionamenti e, per questa via, orientarne la gestione verso obiettivi di miglioramento. Infatti, come osservato da diversi Autori, tale funzione presenta una serie di peculiarità che rendono inefficaci molti degli approcci di misura delle prestazioni comunemente utilizzati, mentre, per contro, vengono considerati più appropriati i PMS basati sulla distinzione tra *results* e *enablers* (Hofmann *et al.*, 2014; Easton *et al.*, 2002; Ellram e Liu, 2002; van Weele, 1994; Dumond, 1991). Inoltre, è diffusa la convinzione che il contributo offerto dalla funzione approvvigionamenti alle *performance* economico-finanziarie aziendali non possa essere facilmente tracciato, per quanto il legame di causa-effetto tra l'efficacia e impatto del suo operato risulti acclarato (Gonzàlez-Benito, 2007; Carr e Pearson, 2002). Di qui l'opportunità di adottare un modello che consenta di osservare in che modo un'azienda possa far leva sulla propria funzione approvvigionamenti quale value *driver* nel miglioramento delle proprie prestazioni complessive.

Con questo obiettivo, si è inteso valutare se le relazioni esistenti tra le nove aree che compongono l'*EFQM Business Excellence Model* trovino conferma anche per quanto attiene la funzione approvvigionamenti.

L'analisi empirica è stata realizzata utilizzando un dataset, estratto dal *database* creato dall'European Institute for Purchasing *Management* (EIPM) con l'obiettivo di selezionare le migliori aziende tra quelle partecipanti al Peter Kraljic Award, un programma di *benchmarking*, condotto sin dal 2010 e volto a valutare il grado di maturità delle funzioni approvvigionamenti attraverso uno strumento di *self-assesssment on-line*, concepito sulla base dell'*EFQM Business Excellence Model*. Tale programma si fonda sull'ipotesi che l'unità organizzativa Approvvigionamenti (o *Supply chain*) possa fornire un valido contributo ai risultati complessivi aziendali, attraverso un *set* di fattori abilitanti (*enablers*) esplicitamente desunti dal *framework* elaborato dall'EFQM. Pertanto, le aziende che aderiscono a questo programma di assessment vengono valutate sulla base di 5 *enablers* e 4 *results*, a loro volta espressi attraverso 81 statement, costruiti *ad hoc* sulle specificità della funzione approvvigionamenti. Gli *enablers* si riferiscono ai sistemi e ai processi che una azienda "*top performing*" dovrebbe adottare nelle proprie attività di approvvigionamento per conseguire risultati eccellenti. I *results* fanno invece riferimento ai diversi ambiti di creazione di valore che un'azienda può ottenere grazie alle proprie prassi di approvvigionamento. Per tutte le variabili sottese sia agli *enablers* sia ai *results*, le aziende aderenti al programma devono fornire una auto-valutazione lungo una scala di Likert a sette livelli - da 1 (pieno disaccordo) a 7 (pieno accordo); inoltre esse devono dare evidenza dei progetti realizzati e delle *best practices* adottate.

Lo strumento di *self-assessment*, articolato in diverse sezioni rappresentative dei costrutti che compongono il modello EFQM, è stato declinato in sotto-sezioni, progettate *ad hoc* per renderlo coerente con le specificità della funzione approvvigionamenti. Esso viene erogato *on line* ed è stato sviluppato in due fasi. Durante la prima fase è stato creato un *team* congiunto tra EFQM ed EIPM, costituito da un gruppo di esperti, provenienti sia dalla comunità professionale sia da quella accademica, con *expertise* specifiche nei seguenti campi: elaborazione di Excellence *framework*, Approvvigionamenti e *Supply chain management*. I risultati di questa prima fase hanno condotto alla elaborazione di un *framework* denominato "*EFQM Framework for External Resource Management*". Come si è menzionato, tale modello è stato progettato avendo quale riferimento l'EFQM Excellence Model. Il *framework* elaborato dal *team* di ricercatori è stato successivamente valutato da 11 manager esperti, provenienti da altrettante aziende *leader*, i quali hanno fornito utili indicazioni e *feedback*. In una seconda fase, un ulteriore *team* di esperti di EIPM e EFQM ha lavorato sullo sviluppo dello strumento di *assessment*, traducendo il *framework* elaborato in una piattaforma di assessment *on-line*; detta piattaforma è stata poi testata da 15 manager senior, partecipanti ad un Executive MBA focalizzato sulla Gestione egli Approvvigionamenti e sul *Supply chain Management*. La versione integrale dell'*assessment* è disponibile *on-line* al seguente link: http://www.eipm.org/SelfAssessTool/Quest.html

Il Peter Kraljic Award è imperniato su una raccolta-dati da grandi imprese multinazionali, riconosciute a livello mondiale per la capacità di elaborare e adottare *best practices* innovative relative ad un ampio *range* di processi di business. Ad oggi, centinaia di aziende hanno aderito al programma di *assessment* su base volontaria, consentendo di creare un ampio *database*. Tuttavia, al fine di testare l'affidabilità del questionario e la sua capacità di adattare il modello EFQM alle specificità della funzione approvvigionamenti, è stato selezionato un sotto-insieme di 118 aziende che hanno completato tutte le sezioni del questionario e che hanno fornito evidenze incontestabili circa le *best practices* implementate. Tali aziende provengono da diversi settori, tra i quali i più rilevanti sono: manifatturiero (22.5%), farmaceutico e chimico (8.1%), costruzioni (7.7%), *utility* di fornitura di elettricità, gas e acqua (7.4%), telecomunicazioni (6.5%), automotive (6.0%). Sotto il profilo della dispersione geografica, il campione risulta così articolato: Francia (33.4%), Germania (10.2%), Svizzera (9.8%), Belgio (6.3%), USA (5.3%), altri Paesi Europei (21%). La restante porzione è composta da aziende ubicate in Asia, Middle East, Sud America e Australia. In termini di fatturato, il 16.6% delle aziende dichiara valori inferiori a 100 Milioni di Euro, il 23,2% tra 100 e 1000 Milioni di Euro, il 38,9% tra 1000 e 10000 Milioni di Euro e, infine, l'11,3% oltre i 10.000 Milioni di Euro. Nel seguito si descrive l'analisi empirica condotta sui dati tratti da tale campione di aziende.

4. L'analisi empirica

Con l'obiettivo di testare l'appropriatezza dell'*EFQM Business Excellence Model* per misurare le *performance* della funzione approvvigionamenti, in primo luogo è stata condotta una *exploratory factor analysis*, volta a verificare se i diversi item che compongono il questionario descrivano correttamente i nove costrutti del modello elaborato da EFQM (Hensley, 1999). Più specificatamente, come suggerito da Hair *et al.* (2014), detta analisi è stata sviluppata per ogni livello del modello, al fine di garantire l'indipendenza tra i fattori e rendere possibile l'elaborazione di un'analisi di regressione. Come indicato da Hair *et al.* (2014), sono stati utilizzati esclusivamente i fattori con un Eigenvalue superiore ad 1. Quindi, al fine di interpretare il significato di ciascun fattore, sono stati considerati solo gli item del questionario che presentavano un factor loading maggiore di 0.4 solo per un fattore (Hair *et al.*, 2014; Hu e Bentler, 1999; Stevens, 1986). Infine, per testare l'affidabilità della scala, è stata calcolata l'Alfa di Cronbach per ogni costrutto, il cui valore porta a valutazioni favorevoli ove superiore a 0.7 (Nunnally, 1978). Nelle Tabelle 1a e 1b sono riportati i valori risultanti dalla *exploratory factor analysis* e quelli relativi all'Alfa di Cronbach, da cui è possibile evincere l'appropriatezza della scala impiegata per descrivere i nove elementi dell'*EFQM Business Excellence Model* applicato alla funzione approvvigionamenti. Inoltre, per escludere la possibilità che le risposte fornite attraverso questo *self-assessment* siano soggette al common method bias (Podsakoff *et al.*, 2003), come suggerito in letteratura è stato condotto il test di Harman (Harman, 1967), che esclude la presenza di tale problema

se dall'analisi fattoriale, effettuata sul totale degli item del questionario, non emerge alcun fattore che spieghi oltre il 50% della variabilità. Tale test, applicato al *dataset* utilizzato in questo studio, ha dato esito favorevole.

Tab. 1a: Enablers: factor loadings e Alfa di Cronbach

Leadership	Factor Loading	Strategy	Factor Loading	People	Factor Loading	Partnership	Factor Loading	Processes	Factor Loading
V1_8	0.863	V2_10	0.888	V3_14	0.841	V4_1	0.842	V5_8	0.863
V1_9	0.857	V2_12	0.885	V3_11	0.840	V4_7	0.836	V5_14	0.845
V1_5	0.844	V2_6	0.884	V3_12	0.830	V4_8	0.824	V5_2	0.842
V1_6	0.831	V2_5	0.874	V3_8	0.822	V4_17	0.822	V5_11	0.834
V1_13	0.813	V2_7	0.860	V3_17	0.821	V4_3	0.818	V5_4	0.831
V1_16	0.806	V2_13	0.859	V3_6	0.812	V4_10	0.814	V5_5	0.829
V1_10	0.805	V2_4	0.850	V3_3	0.808	V4_16	0.812	V5_7	0.823
V1_7	0.802	V2_11	0.845	V3_7	0.807	V4_6	0.807	V5_6	0.823
V1_12	0.778	V2_3	0.836	V3_16	0.798	V4_2	0.806	V5_10	0.815
V1_14	0.773	V2_2	0.832	V3_5	0.797	V4_15	0.804	V5_15	0.807
V1_17	0.772	V2_9	0.813	V3_1	0.789	V4_14	0.799	V5_9	0.801
V1_15	0.761	V2_1	0.767	V3_2	0.787	V4_11	0.784	V5_13	0.787
V1_11	0.757	V2_8	0.674	V3_13	0.774	V4_12	0.769	V5_1	0.787
V1_1	0.735			V3_10	0.771	V4_9	0.749	V5_12	0.786
V1_2	0.721			V3_15	0.750	V4_4	0.724	V5_3	0.786
V1_3	0.691			V3_9	0.729	V4_5	0.723	V5_17	0.773
V1_4	0.658			V3_4	0.702	V4_13	0.598		
Alfa di Cronbach: 0.959		Alfa di Cronbach: 0.963		Alfa di Cronbach: 0.962		Alfa di Cronbach: 0.960		Alfa di Cronbach: 0.967	

Tab. 1b: Results: factor loadings e Alfa di Cronbach

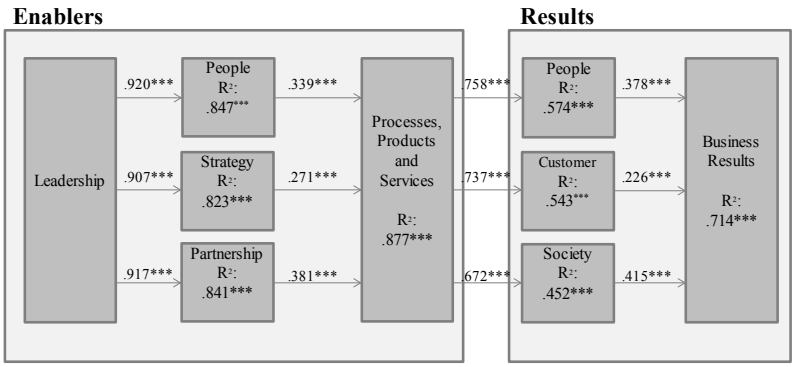
Customers Results	Factor Loading	People Results	Factor Loading	Society Results	Factor Loading	Key Results	Factor Loading
V6_4	0.870	V7_1	0.941	V8_2	0.915	V9_4	0.912
V6_1	0.861	V7_3	0.936	V8_5	0.893	V9_3	0.875
V6_2	0.822	V7_4	0.891	V8_3	0.892	V9_2	0.874
V6_3	0.814	V7_2	0.843	V8_4	0.873	V9_1	0.816
				V8_1	0.866		
Alfa di Cronbach: 0.860		Alfa di Cronbach: 0.924		Alfa di Cronbach: 0.932		Alfa di Cronbach: 0.891	

Fonte: Elaborazioni proprie.

Con l'obiettivo di verificare se le relazioni tra i costrutti sopra descritti fossero coerenti con il razionale sottostante il *framework* elaborato dall'EFQM, è stata quindi condotta una *path analysis* attraverso il metodo Structural Equation Modeling (Edwards e Lambert, 2007; Loehlin, 1998; Bollen, 1989; Wright, 1934).

I risultati, riportati nella Figura 2, evidenziano la *godness-of-fit* del modello, testimoniata dal fatto che tutti gli indicatori rilevanti sono coerenti con i valori soglia indicati in letteratura. Gli effetti indiretti rilevati attraverso la *path analysis* sono, inoltre, riportati nella Tabella 2.

Fig. 2: I risultati della path analysis



*: p-value<0.05; **: p-value<0.01; ***: p-value<0.001
CFI= 0.919; IFI= 0.921; RMSEA= 0.068

Fonte: Elaborazioni proprie

Come illustrato nella Figura 2, tutte le relazioni rilevanti rappresentate dal *framework* EFQM sono verificate; i coefficienti di determinazione (R2 nella Figura 2), infatti, presentano tutti elevate significatività (p-value <0.001); essendo inoltre superiori a 0.5, si dimostra che i *driver* di ciascun costrutto descritto nel modello ne spiegano gran parte della variabilità, con l'unica eccezione del coefficiente di determinazione di *Society Results*, che tuttavia è solo lievemente al di sotto della soglia dello 0.5. Questo valore può peraltro trovare spiegazione nella solo recente integrazione delle iniziative legate al tema della sostenibilità nell'ambito delle attività di approvvigionamento. In futuro, al crescere delle iniziative e dei progetti di sostenibilità svolti nell'ambito degli approvvigionamenti e della *supply chain*, è possibile prevedere che anche in questo ambito si paleserà un coefficiente di correlazione migliore.

L'analisi condotta evidenzia che tutti i coefficienti di regressione sono significativi e presentano, come atteso, valori positivi, mostrando come un aumento nello sforzo prodotto in ogni area del modello possa generare solo risultati favorevoli per l'azienda. Il fatto che emergano esclusivamente relazioni di segno positivo appare ancor più rilevante alla luce dell'eterogeneità delle aziende che hanno aderito al progetto di assessment utilizzando la piattaforma *on-line* del EIPM e ricomprese nel campione analizzato.

Osservando inoltre gli effetti indiretti riportati nella Tabella 2, è possibile verificare che per ciascun livello del modello non sussistono elementi i cui effetti prevalgano in maniera apprezzabile sugli altri. Con riferimento alle dimensioni *People, Strategy* e *Partnership* della sezione *enablers*, sia i coefficienti di regressione verso *Processes* (si veda la Figura 2), sia i loro effetti indiretti sulle dimensioni ricomprese nei *results*, mostrano un grado di rilevanza tra i tre elementi del tutto simile. Analoghe evidenze emergono dall'analisi dei coefficienti di regressione di People, Customers e Society, i cui effetti sulla dimensione *Business Results*, oscillano tra 0.226 e 0.415, mostrando solo lievi differenze tra loro in termini di grado di rilevanza.

Appare inoltre interessante notare come tutti gli *enablers* (ed in particolare *Leadership* e *Processes*) giochino un ruolo chiave sui *results*, in particolare su quelli di Business. Ciò appare coerente con alcuni studi precedenti, secondo i quali la funzione approvvigionamenti è un'importante leva di creazione di valore, sebbene sia difficile descrivere i legami causali tra le *performance* di detta funzione e l'accrescimento di valore complessivo di un'azienda (Gonzàlez-Benito, 2007; Carr e Pearson, 2002).

Tab. 2: Path analysis: effetti indiretti

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Leadership	-	-	-	-	-	-	-	-	-
2. People	-	-	-	-	-	-	-	-	-
3. Strategy	-	-	-	-	-	-	-	-	-
4. Partnership	-	-	-	-	-	-	-	-	-
5. Processes	0.907	-	-	-	-	-	-	-	-
6. People R.	0.688	0.257	0.205	0.289	-	-	-	-	-
7. Customer R.	0.668	0.249	0.200	0.281	-	-	-	-	-
8. Society R.	0.610	0.228	0.182	0.256	-	-	-	-	-
9. Business R.	0.664	0.248	0.198	0.279	0.732	-	-	-	-

Fonte: Elaborazioni proprie.

5. Implicazioni manageriali ed evoluzione delle best practices adottate

L'analisi empirica condotta, svolta su una sezione del *database* "*EIPM Peter Kraljic Award*", ha fornito evidenze confortanti, dimostrando che le relazioni tra le componenti descritte nell'*EFQM Business Excellence Model* mantengono la loro validità anche nel campo della gestione degli approvvigionamenti. I risultati cui si è giunti evidenziano la natura olistica dei processi di *performance measurement* and *management* nell'area degli approvvigionamenti e della *supply chain*. Infatti, da quanto osservato emerge che, per migliorare le proprie *performance*, le aziende non possono limitarsi ad adottare poche *best practices* nei loro processi core, ma devono intraprendere una più ampia varietà di azioni, assicurandosi di essere in grado di valutarne la coerente implementazione, di misurarne gli esiti e di garantirne la sostenibilità nel tempo. Tali azioni si sostengono reciprocamente e devono trovare un'integrazione complessiva nella cultura aziendale e in sistemi gestionali dotati di capacità adattative, in grado di riconfigurarsi in ragione dell'evoluzione attesa nei fattori ambientali, nelle strategie e nelle attese dell'organizzazione aziendale cui appartengono. Ciò conduce alla necessità di progettare PMS per le funzioni approvvigionamenti che possano ricomprendere un'ampia varietà di indicatori, espressione di differenti prospettive, qui distinte tra *enablers* e *results*.

Le evidenze espresse dall'analisi condotta trovano, inoltre, conforto dall'osservazione dell'ampia casistica di aziende che hanno aderito all'iniziativa, le quali, riconoscendone il ruolo nei processi di creazione di vantaggi competitivi, hanno posto particolare attenzione allo sviluppo

e all'adozione di prassi innovative nell'ambito delle proprie funzioni approvvigionamenti, aggiornandole e arricchendole nel corso degli anni. Concentrando l'attenzione sui vincitori delle edizioni dal 2010 al 2012, si può osservare che, come sintetizzato nella Tabella 3, le tre aziende sono tutte caratterizzate dal ricorso ad una pluralità di prassi. Esse evidenziano la volontà di queste organizzazioni di intervenire su vari fronti, che implicano l'armonizzazione dei processi di approvvigionamento con le esigenze dei clienti interni, la razionalizzazione e l'integrazione di filiera secondo modalità cooperative, la predisposizione di un sistema di *reporting* adeguato alla complessità dei fenomeni osservati, l'adeguamento alle più recenti esigenze in tema di sostenibilità sociale e ambientale nei processi di sourcing e, infine, l'adozione di logiche di gestione del personale capaci di premiarne le capacità e di salvaguardarne il *work-life balance*.

Tab. 3: Evidenze dalle aziende vincitrici nelle edizioni 2010, 2011 e 2012

Vincitori Peter Kraljic Award	Best practices
Edizione 2010	- Elevata integrazione della funzione approvvigionamenti con le funzioni Marketing & Vendite, Produzione e R&S - Condivisione degli obiettivi e delle strategie di sourcing presso tutte le sedi aziendali - Razionalizzazione del parco fornitori e focalizzazione su pochi partner strategici - Valutazione sistematica dei fornitori attraverso una scorecard - Survey di soddisfazione del fornitore con cadenza annuale - Attività di supporto rivolte a fornitori di seconda fascia (second tier) - Adozione dei principi di corporate social responsibility già dagli anni '90 - Ricorso a indicatori di sostenibilità sociale e ambientale della selezione e valutazione dei fornitori - Progetti di innovazione congiunta con fornitori, con l'assegnazione di un premio annuale (Innovation Award) ai fornitori più innovativi e workshop periodici con i fornitori sul tema - Sistemi di KPI per la valutazione del personale, con algoritmi che collegano i premi di risultato al contributo del singolo dipendente - Programma di individuazione e sviluppo dei talenti - Survey periodica sulla soddisfazione dei dipendenti
Edizione 2011	- PMS per gli approvvigionamenti con dettaglio mensile dei risultati e pianificazione annuale degli obiettivi - Survey periodica sulla soddisfazione dei clienti interni - Politica di risk management, attraverso il ricorso al single sourcing per max 5% dei fabbisogni - Sistemi di tracciabilità delle merci in c/lavoro presso terzisti e di misura delle prestazioni di ciascun fornitore e terzista - Sviluppo di nuovi mercati della fornitura in logica 3P, per favorire collaborazioni con fornitori capaci di impiegare energie rinnovabili - Attività di R&S congiunte con fornitori per la ricerca di soluzioni eco-sostenibili - Collaborazioni strutturate con le università per sostenere la ricerca sui temi della resilienza del purchasing - Stanziamento di un "caring budget", per iniziative finalizzate al maggior benessere dei dipendenti - Programmi sul work-life balance, centrati sulla tutela del tempo libero e sul ricorso a soluzioni part-time - Survey periodica sulla soddisfazione dei dipendenti
Edizione 2012	- Elevata integrazione interna con le principali funzioni e significativo coinvolgimento della funzione approvvigionamenti nei processi di M&A - Coinvolgimento nei processi di innovazione in logica di concurrent engineering, con un focus particolare sui principi della sostenibilità dei nuovi prodotti - Ricerca di collaborazione di lungo termine con i fornitori strategici, anche attraverso attività di sostegno a quelli di piccole-medie dimensioni - Ricorso soluzioni di Fair Trade per il sostegno e lo sviluppo di fornitori nei Paesi in via di sviluppo - Adozione sistematica di pratiche di sostenibilità, finalizzate alla ricerca insieme ai fornitori di soluzioni finalizzate alla riduzione del consumo di energia elettrica e all'estensione della vita utile dei macchinari industriali - Pianificazione di programmi di Talent Management, per la valorizzazione e la crescita del personale della funzione approvvigionamenti

Fonte: Database EIPM, 2014

Allo stesso tempo, osservando le prassi adottate dalle aziende finaliste del Peter Kraljic Award nel corso delle ultime edizioni, è stato rilevato anche un "percorso evolutivo", ovvero un costante miglioramento e arricchimento delle soluzioni adottate per migliorare le *performance* dei processi di approvvigionamento, specie in alcune aree di gestione. In particolare, è stata riscontrata una marcata tendenza al costante miglioramento dei processi di reporting di funzione e di valutazione dei fornitori, che sempre più evolvono nella direzione di veri e propri sistemi integrati, capaci di supportare il deployment degli obiettivi strategici dell'azienda in un insieme di *target* per la funzione e per i soggetti terzi con cui essa si interfaccia. Si è rilevata, inoltre, la tendenza a standardizzare i processi di sourcing, con implicazioni significative soprattutto in ragione delle grandi dimensioni delle aziende considerate e della loro operatività a livello internazionale. Ciò è funzionale ad un'ulteriore evoluzione, rappresentata dal ricorso a scelte di accentramento presso la direzione di funzione delle decisioni di tipo strategico e tattico, e di delega ai siti aziendali periferici delle attività operative. Inoltre, le politiche di approvvigionamento nel corso delle ultime edizioni sono risultate sempre più differenziate in funzione della tipologia dell'articolo acquistato, dove la distinzione tra materiali diretti e indiretti sembra essere largamente prevalente.

Anche per quanto attiene all'introduzione di principi di sostenibilità nei processi di approvvigionamento, nell'intervallo 2010-2012 si è osservata una significativa evoluzione. Infatti, se nel 2010 le aziende finaliste dichiaravano di confrontarsi con queste tematiche soprattutto attraverso l'inserimento di parametri di sostenibilità sociale e ambientale nei processi di *vendor rating*, nelle edizioni più recenti sono stati menzionati progetti più sofisticati, che implicano, per esempio, attività di sostegno e formazione dei fornitori, specie se medio-piccoli, e iniziative congiunte di sviluppo di prodotti eco-sostenibili.

Da ultimo, appare evidente anche il cambiamento di approccio al *risk management*, che sempre più si sostanzia non solo nella quantificazione dei profili di rischio associati a ciascun fornitore, ma anche nell'individuazione *ex-ante* di strategie di mitigazione degli effetti determinati da eventi critici.

L'insieme di queste evidenze porta a confermare ulteriormente la validità del *self-assessment* qui proposto per la funzione approvvigionamenti. Infatti, gli esiti favorevoli dell'indagine statistica trovano riscontro nella capacità di questo strumento di individuare situazioni di reale eccellenza attraverso la comparazione di realtà aziendali diverse. Ciò consente di avvalorare ulteriormente le evidenze emerse dall'analisi statistica che, oltre a confermare la capacità del questionario di descrivere in modo appropriato i costrutti caratterizzanti l'*EFQM Business Excellence Model*, escludono anche la possibilità che esso, richiedendo valutazioni su scale percettive (e, quindi, soggettive), porti a rilevazioni soggette al *common method bias*, ovvero alla tendenza del rispondente a fornire valori fra loro coerenti.

6. Conclusioni

Questo lavoro illustra il tentativo di impiegare l'*EFQM Business Excellence Model* come *framework* di riferimento per la valutazione delle *performance* delle funzioni approvvigionamenti di una azienda e dell'impatto che queste hanno sui processi di creazione di valore più complessivi. I contributi rinvenibili in letteratura sui PMS hanno evidenziato, per un verso, la rilevanza della funzione approvvigionamenti nel determinare il successo economico-finanziario e competitivo aziendale e, per un altro, la difficoltà di progettare sistemi di reporting in grado di misurare quantitativamente e analiticamente i suoi profili di efficacia ed efficienza. Partendo da tali considerazioni ed evidenze, nel presente *paper* si è voluto testare la possibilità di utilizzare anche nell'ambito della funzione approvvigionamenti il modello elaborato da EFQM e impiegato in differenti contesti aziendali, nei quali il modo più efficace per giungere ad una misura della *performance* si fonda sulla distinzione tra grandezze *enablers* e grandezze *results*.

Per quanto l'analisi condotta abbia confermato la validità del *framework* EFQM per misurare le *performance* della funzione approvvigionamenti, fornendo valide indicazioni in merito ai principi che dovrebbero informare la progettazione del proprio PSM, lo strumento di *self-assessment* adottato in questo studio è basato sull'uso di grandezze misurate attraverso scale di Likert.

In prospettiva, appare utile approfondire le evidenze emerse da questo studio attraverso un'analisi finalizzata a comprendere come tradurre i costrutti peculiari del modello EFQM in un opportuno *set* di indicatori quantitativi. Appare infatti evidente che la progettazione e l'implementazione di un sistema di misura delle prestazioni debbano necessariamente fondarsi sul ricorso a metriche capaci di quantificare in maniera oggettiva la prestazione in esame, al fine di individuare divari significativi tra *target* e consuntivi, di osservarne la dinamica temporale e di rendere possibile anche attività di *benchmarking*. A questo scopo, si ritiene che il ricorso a metodologie qualitative della ricerca, e in particolare lo studio di più casi aziendali, possa consentire di individuare gli indicatori di prestazioni più diffusi nelle funzioni approvvigionamenti e arrivare ad una clusterizzazione degli stessi che consenta di trovare una corrispondenza tra i costrutti evidenziati nel modello EFQM. Ciò potrebbe costituire il presupposto per un successivo studio empirico, mirato alla costruzione di un *database* di valori prestazionali attraverso cui testare il modello EFQM nella funzione approvvigionamenti, superando in tal modo i limiti peculiari delle valutazioni su scale percettive.

Pur considerando i limiti di questo studio, nella consapevolezza delle difficoltà che le aziende incontrano nel progettare, gestire e aggiornare un complesso PSM funzionale, si ritiene che l'impiego di un sistema di *self-assessment* basato su scale di Likert abbia il pregio di stimolare una riflessione certamente utile all'interno di ogni organizzazione. Ciò con l'obiettivo di evidenziare eventuali disallineamenti e *gap* di percezione, ai differenti livelli organizzativi della gerarchia aziendale, in merito alla relazione tra i miglioramenti conseguibili nella funzione approvvigionamenti e i conseguenti possibili riverberi sui risultati economici di un'azienda e sulla sua competitività.

Un ulteriore limite del presente studio riguarda la composizione del campione di imprese. Essendo stato impiegato il *database* al Peter Kraljic Award, il campione non è stratificato ed è potenzialmente influenzato da un fenomeno di autoselezione delle aziende. Sebbene questa scelta abbia il pregio di valorizzare un *database* costituito in massima parte da imprese operanti su scala internazionale e note per l'eccellenza delle prassi gestionali, sarebbe utile replicare l'indagine su un campione opportunamente definito di imprese estranee al Peter Kraljic Award.

Infine, un ulteriore ambito di approfondimento dei temi trattati in questo studio è costituito dalle *best practice* relative agli approvvigionamenti che, in ciascuna delle aree evidenziate dal modello EFQM, possono essere impiegate per conseguire miglioramenti prestazionali. Se è vero, per un verso, che un PMS deve consentire di individuare le aree di potenziale miglioramento, dall'altro esso risulta particolarmente efficacie quando il *management* riesce ad individuare le logiche e gli strumenti utili a colmare un *gap* prestazionale. Le informazioni presentate in questo studio in relazione alle *best practice* delle aziende premiate nell'ambito del Peter Kraljic Award costituiscono un'evidenza in tal senso, poiché dimostrano che le imprese capaci di adottare soluzioni gestionali innovative e all'avanguardia sono contraddistinte da prestazioni di ordine superiore. Sarebbe, dunque, utile approfondire questo aspetto, allo scopo di identificare le prassi eccellenti impiegate dalle funzioni approvvigionamenti e soprattutto di classificarle in relazione ai costrutti presenti nel modello EFQM.

Bibliografia

ALFARO J.J., ORTIZ A.A., POLER R.R. (2007), "Performance Measurement System for business Processes", *Production Planning and Control*, vol. 18, n. 8, pp. 641-654.

ANTHONY R.N. (1988), *The management control function*, Harvard Business School Press, Boston, Massachusetts, U.S.A.

BELVEDERE V. (2014), "Defining the scope of service operations management: an investigation on the factors that affect the span of responsibility of the operations department in service companies", *Production Planning and Control,* vol. 25, n. 6, pp. 447-461.

BELVEDERE V. (2015), *La misura delle prestazioni produttive e logistiche nelle aziende industriali*, EGEA, Milano.

BELVEDERE V., GALLMANN F. (2005), "Le misure di performance dell'ufficio acquisti", in Stabilini G. (a cura di), *Acquistare Prodotti e Servizi. Processi, logiche e soluzioni gestionali*, ETAS, Milano, pp. 201-222.

BITITCI U.S., FIRAT S.O., GARENGO P.P. (2013), "How to compare performances of firms operating in different sectors?", *Production Planning and Control*, vol. 24, n. 12, pp. 1032-1049.

BLOME C., HOLLOS D., PAULRAJ A. (2014), "Green procurement and green supplier development: antecedents and effects on supplier performance", I*nternational Journal of Production Research*, vol. 52, n. 1, pp. 32-49.

BOLBOLI S.A., REICHE M. (2015), "Introducing a concept for efficient design of EFQM excellence model", *The TQM Journa*l, vol. 27, n. 4, pp. 382-396.

BOLLEN K.A. (1989), *Structural equations with latent variables*, John Wiley & Sons, New York.

BOU-LLUSAR J., ESCRIG-TENA A.B., ROCA-PUIG V., BELTRÁN-MARTÍN I. (2009), "An empirical assessment of the EFQM Excellence Model: Evaluation as a TQM framework relative to the MBNQA Model", *Journal of Operations Management*, vol. 27, n. 1, pp. 1-22.

BOURNE M., NEELY A., PLATTS K., MILLS J. (2002), "The success and failure of performance measurement initiatives. Perceptions of participating managers", *International Journal of Operations and Production Management,* vol. 22, n. 11, pp. 1288-1310.

BRIGNALL S., BALLANTINE J. (1996), "Performance measurement in service businesses revisited", *International Journal of Service Industry Management,* vol. 7, n. 1, pp. 6-31.

CALVO-MORA A., LEAL A., ROLDÁN J.L. (2005), "Relationships between the EFQM model criteria: a study in Spanish universities", *Total quality management & business excellence*, vol. 16, n. 6, pp. 741-770.

CALVO-MORA A., PICÓN-BERJOYO A., RUIZ-MORENO C., CAUZO-BOTTALA L. (2015), "Contextual and mediation analysis between TQM critical factors and organisational results in the EFQM Excellence Model framework", *International Journal of Production Research*, vol. 53, n. 7, pp. 2186-2201.

CARR A.S., PEARSON J.N. (2002), "The impact of purchasing and supplier involvement on strategic purchasing and its impact on firm's performance", *International Journal of Operations and Production Management*, vol. 22, n. 9/10, pp. 1032-1053.

DUMOND E.J. (1991), "Performance measurement and decision making in a purchasing environment", *International Journal of Purchasing and Materials Management*, vol. 27, n. 2, pp. 21-31.

EASTON L., MURPHY D.J., PEARSON J.N. (2002), "Purchasing performance evaluation: with data envelopment analysis", *European Journal of Purchasing and Supply Management*, vol. 8, n. 3, pp. 123-134.

EDWARDS J.R., LAMBERT L.S. (2007), "Methods for integrating moderation and mediation: a general analytical framework using moderated path analysis", *Psychological methods*, vol. 12, n. 1, pp. 1-22.

EFQM (1991), *The Business Excellence Model*, EFQM Publication, Brussels.

EFQM (2013), *An overview of the EFQM Excellence Model*, EFQM Publication, Brussels.

ELLRAM L.M., LIU B. (2002), "The financial impact of supply management", *Supply chain Management Review*, vol. 6, n. 6, pp. 30-37.

FITZGERALD L., JOHNSTON R., BRIGNALL T.J., SILVESTRO R., VOSS C. (1991), *Performance Measurement in Service Businesses*, CIMA, London, U.K.

GÓMEZ GÓMEZ J.G., MARTÍNEZ-COSTA M.M., LORENTE Á.R.M. (2011), "A critical evaluation of the EFQM model", *International Journal of Quality and Reliability Management*, vol. 28, n. 5, pp. 484-502.

GONZÀLEZ-BENITO J. (2007), "A theory of purchasing's contribution to business performance", *Journal of Operations Management*, vol. 25, n. 4, pp. 901-917.

GRANDO A., SIANESI A. (1991), "Il Fornitore: dal prezzo alla prestazione globale", *Economia e Management*, vol. 22 settembre-ottobre, pp. 72-86.

GRANDO A., TAPIERO C.S., BELVEDERE V. (2007), "Operational performances in manufacturing and service industries: conceptual framework and research agenda", *International Journal of Business Performance Management*, vol. 9, n. 2, pp. 110-126.

GRANDO A., VERONA G., VICARI S. (2006), *Tecnologia, Innovazione, Operations*, Egea, Milano.

GUNASEKARAN A., KOBU B. (2007), "Performance measures and metrics in logistics and supply chain management: a review of recent literature (1995-2004) for research and applications", *International Journal of Production Research*, vol. 45, n. 12, pp. 2819-2840.

HAIR J.F., BLACK W.C., BABIN B.J., ANDERSON R.E., TATHAM R.L. (2014), *Multivariate Data Analysis (6th ed.)*, Edinburgh Gate Harlow, Pearson Education, UK.

HARMAN H.H. (1967), *Modern Factor Analysis*, University of Chicago Press, Chicago, Illinois.

HENSLEY R.L. (1999), "A review of operations and management studies using scale development techniques", *Journal of Operations Management*, vol. 17, n. 3, pp. 343-358.

HIDES M.T., DAVIES J., JACKSON S. (2004), "Implementation of EFQM excellence model self-assessment in the UK higher education sector-lessons learned from other sectors", *The TQM Magazine*, vol. 16, n. 3, pp. 194-201.

HOFMANN E., MAUCHER D., KOTULA M., KREIENBRINK O. (2014), *Performance Measurement and Incentive Systems in Purchasing. More than just Savings*, Springer, Heidelberg, Germany.

HU L., BENTLER P.M. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives", S*tructural Equation Modeling,* vol. 6, n. 1, pp. 1-55.

KAPLAN R.S., NORTON D.P. (1996), *The Balanced Scorecard - Translating Strategy into Action*, Harvard Business School Press, Boston, Mass., U.S.A.

KAPLAN R.S., NORTON D.P. (2000), *The Strategy Focused Organization - How Balanced Scorecard Companies Thrive in the New Business Environment*, Harvard Business School Press, Boston, Mass., U.S.A.

LEONARD D., MCADAM R. (2002), "The role of the business excellence model in operational and strategic decision making", *Management Decision*, vol. 40, n. 1, pp. 17-25.

LOEHLIN J.C. (1998), *Latent variable models: An introduction to factor, path, and structural analysis*, Lawrence Erlbaum Associates Publishers, Mahwah, NJ, U.S.

LYNCH R.L., CROSS K.F. (1991), *Measure Up - The Essential Guide to Measuring Business Performance*, Mandarin, Londra.

MASKELL B.H. (1991), *Performance Measurement for World Class Manufacturing: A Model for American Companies*, Productivity Press, Cambridge, MA.

MCADAM R., BAILIE B. (2002), "Business performance measures and alignment impact on strategy", *International Journal of Operations and Production Management*, vol. 22, n. 9, pp. 972-996.

MIGLIACCIO M. (2011), "Evoluzione del processo di acquisto e logica digitale", *Sinergie*, n. 56, pp. 177-196.

MISHRA A., DEVARAJ S., VAIDYANATHAN G. (2013), "Capability hierarchy in electronic procurement and procurement process performance: An empirical analysis", *Journal of Operations Management*, vol. 31, n. 6, pp. 376-390.

NABITZ U., KLAZINGA N., WALBURG J.A.N. (2000), "The EFQM excellence model: European and Dutch experiences with the EFQM approach in health care", *International Journal for Quality in Health Care*, vol. 12, n. 3, pp. 191-202.

NEELY A., ADAMS C., CROWE P. (2001), "The performance prism in practice", *Measuring Business Excellence*, vol. 5, n. 2, pp. 6-13.

NEELY A., BOURNE M., MILLS J., PLATTS K., RICHARDS H. (2002), *Getting the measure of your business*, Cambridge University Press, Cambridge, U.K.

NEELY A., GREGORY M., PLATTS K. (1995), "Performance Measurement System design. A literature review and a research agenda", *International Journal of Operations and Production Management*, vol. 15 n. 4, pp. 80-116.

NEELY A., MILLS J., PLATTS K., RICHARDS H., GREGORY M., BOURNE M., KENNERLEY M. (2000), "Performance Measurement System design: developing and testing a process-based approach", *International Journal of Operations and Production Management*, vol. 20 n. 10, pp. 1119-1145.

NEELY A. (2005), "The evolution of performance measurement research: Developments in the last decade and a research agenda for the next", *International Journal of Operations and Production Management*, vol. 25, n. 12, pp. 1264-1277.

NUNNALLY, J.C. (1978), *Psychometric theory (2nd ed.),* McGraw-Hill, New York.

PODSAKOFF P.M., MACKENZIE S.B., JEONG-YEON L., PODSAKOFF N.P. (2003), "Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies", *Journal of Applied Psychology*, vol. 88, n. 5, pp. 879-903.

RITCHIE L., DALE B.G. (2000), "Self-assessment using the business excellence model: A study of practice and process", *International Journal of Production Economics*, vol. 66, n. 20, pp. 241-254.

RUSJAN B. (2005), "Usefulness of the EFQM excellence model: Theoretical explanation of some conceptual and methodological issues", *Total Quality Management and Business Excellence*, vol. 16, n. 3, pp. 363-380.

SAMUELSSON P., NILSSON L.E. (2002), "Self-assessment practices in large organisations: Experiences from using the EFQM excellence model", *International Journal of Quality and Reliability Management*, vol. 19, n. 1, pp. 10-23.

SARGIACOMO M. (2000), "TQM for Higher Education Institutions II - Higher Education Institutions and the Issue of Total Quality", *Sinergie Rapporto di Ricerca*, n. 9, pp. 109-130.

SCIOMMERI M., D'ASCENZO F. (2009), "I modelli di analisi "Vendor Selection Method-VSM" e "Vendor Evaluation Method-VEM", *Sinergie*, n. 78, pp. 127-144.

SENESE M.S. (2003), "Qualità e benchmarking nel settore culturale", *Economia della Cultura*, XIII, n. 4, pp. 477-484.

SIGNORI P. (2011), "SCIMam (supply chain integrated management analysis method): la valutazione delle potenzialità d'integrazione logistica di una catena estesa di fornitura", *Sinergie*, n. 56, pp. 37-65.

SILVESTRO R., FITZGERALD L., JOHNSTON R., VOSS C. (1992), "Towards a classification of service Processes", *International Journal of Service Industry Management*, vol. 3 n. 3, pp. 62-75.

SIMONE C. (2011), "Aspetti interni e transazionali del "Progetto Approvvigionamento" dell'Alenia-Divisione Spazio", *Sinergie*, n. 63, pp. 171-198.

SIMONS R. (2000), *Performance measurement & control systems for implementing strategy. Text & cases*. Prentice Hall, London, U.K.

STEVENS J. (1986), *Applied Multivariate Statistics for the Social Sciences*, Lawrence Erlbaum Associates, Hillsdale, NJ.

TUNISINI A. (2002), "Procurement Processes and supply networks. An inquiry into Italian furniture and wood-working machinery industries", *Sinergie*, n. 58, pp. 121-136.

VAN WEELE A.J. (1994), *Purchasing Management. Analysis, planning and practice*, Chapman & Hall, London, U.K.

VICKERY S.K., DROGE C., MARKLAND R.E. (1993), "Production competence and business strategy: do they affect business performance?", *Decision Sciences*, vol. 24 n. 2, pp. 436-455.

WISNER J.D., FAWCETT S.E. (1991), "Link firm strategy to operating decisions through performance measurement", *Production and Inventory Management Journal*, vol. 32, n. 3, pp. 5-11.

WRIGHT S. (1934), "The method of path coefficients", *Annals of Mathematical Statistics*, vol. 5, n. 3, pp. 161-215.

YADAV N., SAGAR M. (2013), "Performance measurement and management frameworks. Research trends of the last two decades", *Business Process Management Journal*, vol. 19, n. 6, pp. 947-971.

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Marketing of touristic districts - viable systems in the experience economy

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1. Introduction

In the extant managerial literature, the recent contribution by J. Pine II and J.H. Gilmore, *The Experience Economy Goes Beyond Service*, has attracted our attention because it offers so much food for thought regarding the possible evolutionary pathways that advanced societies' consumption models could follow and the consequent strategic challenges that businesses will have to face in order to meet their clients' new needs and to successfully adapt to market changes. Based on their observations of American society, certainly that with the greatest propensity toward consumption, and starting from the implicit hypothesis that demand is constantly on the lookout for new objects and forms of consumption, for new emotions and sensations, and with greater consumer expectations (Ritzer, 2000), the two scholars suggest the provocative thesis that, by now, *the era of services is on its way out to make way for the experience economy.* In this new scenario, in which there is little or nothing left to purchase, *for the extre mely demanding and aware consumer, value is created by the enterprise that offers experiences*[1]*, rather than goods and services.* In the American authors' view, experiences represent economic proposals that differ greatly from services, at least to the same extent that services differs from goods; nevertheless, they still represent 'products' which, like goods and services, can be offered to the client either singly or in combination with other outputs (good, services) in the form of 'packages'. Moreover, compared to services, experiences stand out for their uniqueness and capacity to be *personal*, instead of personalized, in addition to the fact that they are 'staged' and not simply handed out. This implies that enterprises must undergo a transformation from being mere providers of services or sellers of goods to becoming 'stage directors' of experiences for the client who, in the new perspective, is called 'guest'. By the same token, writes Rifkin, the economy is being transformed, from "gigantic factory" to "endless theater" and now "every business is show business" (Rifkin, 2000, p. 219).

Consumer satisfaction and loyalty are determined by the ability of organizations to go *beyond* the normal capacity to satisfy demand, trying to transcend expectations through new and completely unexpected offerings for the clientele; it is a matter of *staging surprises*, thus widening the gap between what the client perceives and what s/he expects to get (Pine and Gilmore, p. 117).

[1] According to Toffler (1988, p. 236), "we will become the first civilization in history to utilize highly advanced technology to produce the most transitory and, at the same time, the most enduring of products: the human experience".

The experience economy model, which came out in the U.S. in parallel with numerous other managerial theories and models in support of the *'theatricalization of economic activities'* (Grove, Fisk, and Bitner, 1997), seemed, to us, particularly applicable to the tourism industry and especially to tourism districts. The latter are territories in which it is a daily task of tourism operators to *formulate offerings that are often inspired by the logic of providing the clientele with a more or less integrated mix of goods and services in which, however, there is an experiential dimension that is purely casual, spontaneous, and unintended, with no real economic or marketing objective.*

In a context of *entertainment* economy (Bird, 2002), the evolution of tourist demand towards forms of demand for experiences actually *forces* agents in the sector, if they are to remain competitive, to develop a new conceptual framework and adopt original managerial tools for fulfilling this demand. In other words, if consumers tend to essentially purchase emotions and experiences, then the supply side must be populated with producers and sellers of 'memories' (Valdani and Guenzi, 1998), and the marketing of services and of experiences must use the theater model as its point of reference (Grove, Fisk, and Bitner, 1997).

The aim of this article is to propose an application of the experience economy model to tourism and, in particular, to *tourist districts* (Pencarelli, 2001), interpreted as a *paradigm of the Viable Systems Approach (VSA) (Golinelli, 2000).* This concept has allowed us to discern what type of districts, otherwise labeled as touristic systems, local tourist offering systems and so on in the literature, fit the concept of 'system' in a narrow sense and what the prerequisites are, therefore, that a district must meet in order to qualify as a viable system. From this work it emerges that, among the various factors needed for a district (in the strictest sense) to fall within the viable systemic concept, there must be the indispensable presence of a *governing body*, to which we refer in our proposal for possible tourist district market-oriented management tools. We propose applying the *marketing concept* to tourist districts with all due conceptual caution, aware of the limitations inherent in both theory and managerial actions, in undertaking to shift into territorial contexts paradigms and tools that were developed with reference to organizational systems.

The marketing paradigm most effective for our purposes is that of *total relationship marketing* (Gummesson, 1999), which goes beyond the traditional framework of *marketing management* to move toward the concept of *marketing-oriented management*. Total relationship marketing is based on a holistic approach which aims to build and maintain long-term, positive relationships with single clients and other stakeholders, and which recognizes that the end value for the client is co-created with all of the parties involved. From this standpoint, Gummesson's thesis, analogous to the relationship marketing approach put forward by Peck, Christopher, Payne, and Clark (1999), promotes the idea that relationship marketing represents the convergence of the marketing paradigm and that of total quality (Cozzi, Ferrero, 2000), and focuses on *customer satisfaction and customer service.* In other words, it is a question of *adopting an integrated managerial perspective that is widely diffused organization-wide and*

culturally holistic, in keeping with the viable system concept. What is to be avoided is the logic of focusing the marketing only on the final client thereby falling into a near-sighted approach that underestimates the importance of truly satisfying an audience when all of the theater components have worked together well. Indeed, concentrating exclusively on the external consumer means ignoring the fact that, in an organizational system, there are stakeholders (internal clients, distributers, suppliers, financial backers, public institutions, mass media, etc.) whose complete satisfaction is an indispensable condition for satisfying the final client and for long-term competitive success.

Finally, from our work there emerges, alongside the indisputable merits of providing innovative and holistic elements for reflection and action for the governance of tourist districts in the new consumption scenario, that the experience economy model also presents some negative aspects. These aspects should not be overlooked in the governance of touristic systems when, for instance, following in the wake of a strong theme, the choice is made to stage experiences aimed at enhancing existing facets of the territory or region (in terms of both *front region* and *back region*) and build artificial touristic spaces that tourists must pay for in an area where a real experience could be enjoyed for free. We allude, in particular, to the danger that in an effort to make an offering so spectacular in terms of providing tourists with experiences, emotions, memories, dreams come true, or other forms of entertainment, it risks becoming excessively trite and overly commercialized[2], thus creating desensitized clients who are even resentful of the various forms of experience-tourism and are less apt to be amazed, awed, and surprised. Pushing too hard or inappropriately on the spectacular experience lever can actually make people want to run from anything that makes their free time, which should be for creative and recreational activities of choice, become 'mandated time' geared toward forced consumption. Ultimately, time is manipulated so that it no longer enriches and relaxes but rather, impoverishes and tires individuals, negatively impacting on their quality of life (Rifkin, 2000, p. 201; Pratesi, 2002, pp. 73-74).

The experience economy model must therefore be adopted prudently, avoiding interpretations that are totally uncritical which can occasionally be seen in Pine and Gilmore; instead, it would be preferable to follow the suggestions of Grove, Frisk, and Bitner (1997) according to whom, when management embraces the theater metaphor, it is essential that a staging of experiences be authentic (tourists can tell immediately when a situation or an attitude is fake and they usually do not appreciate it), adaptable, and appropriate (every performance must be adapted to the situation, to the client, etc.), as well as be sufficiently applicable to the context being managed.

[2] At its most extreme, the experience economy approach leads significant segments of public goods (museums, natural resources, traditions, etc.) to take part in cultural productions in which culture is brought to the market to offer entertainment and experiences to tourists (Rifkin, 2000, p. 201).

2. Tourism demand within the experience economy perspective

Over the last two decades the number of people who habitually spend their free time engaged in touristic activities has grown enormously. Tourism has progressively evolved from an elitist phenomenon to *widespread mass behavior* (Metallo, 1984, p. 27), thus involving wider and more diverse segments of the world's population to become a *good of citizenship* in industrialized societies (Alberoni, 1964; Becheri and Manente, 2001). In parallel to the quantitative growth of tourism, there has also been an expansion in the variety and variability of touristic consumption behaviors, just as there has been a multiplication of the opportunities for and forms of enjoyment of free time (Resciniti, 2002).

In this altered scenario, it has become more and more difficult to identify 'typical'[3] tourist behavior, particularly in the area of leisure tourism, referred to in the follow-up publication. It can be said that tourist behavior originates from a multitude of needs that merge into the desire for temporary existential variety (or the need to 'get away') of people willing to invest resources of time, energy, and money for travel (Vicari, 1983; Metallo, 1984; Sancetta, 1995, Rispoli and Tamma, 1996), considered to be a good way to re-balance or to satisfy psychological needs of which the tourist is sometimes even unaware.

According to the current view (Borghesi, 1994, p. 17; Rispoli and Tamma, 1996, p. 53; Casarin, 1996, p. 78), the various needs of travelers are satisfied through a wide range of tourism products deriving from different combinations of goods, services, and other contextual and environmental factors put in place by the offering. The objective is to utilize, to varying degrees, informational support in order to bring into alignment the differing perspectives on the demand side (global perspective) and on the supply side (specific perspective)[4].

[3] The multiform reality of tourists can be represented by a continuum of situations falling between two extremes (Poon, 1993; Pencarelli, 2001): On one side, there is the "expert clientele" made up of people who have travelled extensively, who are informed, and who know how to get informed. These persons usually know what they are looking for and are able to get themselves organized and put together their own trip relatively easily. On the other side, there is the "non-expert clientele" made up of individuals who started vacationing relatively late in life, who struggle to find information that is not in a standardized format, who cannot specify their preferences, and who prefer a package deal to a do-it-yourself trip. These persons are generally attracted to highly standardized, tried-and-true travel formulas. For more information on types of tourism, see also Corrigan (1999), Martinengo and Savoja (1998), Cohen (1979), Casarin (1996), and Della Corte (2000).

[4] For a touristic producer, the touristic product (specific) is "an integrated set of varying types of services whose central core characterizes both the product and the type of tourist organization offering it" (Casarin, 1996, p. 52). For a tourist, the touristic product (global) (p. 47) is "a set of environmental and instrumental factors defined as a global touristic product in which a combination of elements all come together; they are the attraction features of the destination and transit areas, the services and facilities at the destination and in the transit areas, the accessibility of the destination, the image of the destination and the information regarding it".

In this article it is assumed that tourism demand, similarly to the majority of consumption behaviors in western society, is becoming more and more 'experience demand' in the sense attributed to the term by Pine and Gilmore (2000, p. 14); according to them, every experience happens at all levels - emotional, physical, intellectual, and spiritual - within each single individual, and it derives from "the interaction between the staged event and the previous mental and existential condition of the individual". This is why two individuals cannot have the same experience. *This is why the new competitive challenge for tourism enterprises consists in offering clients something that goes beyond goods and services.* In fact, the American scholars go on to state that:

> Experiences are a fourth economic offering, as distinct from services as services are from goods, but one that has until now gone largely unrecognized. Experiences have always been around, but consumers, businesses, and economists lumped them into the service sector along with such uneventful activities as dry cleaning, auto repair, wholesale distribution, and telephone access. When a person buys a service, he purchases a set of intangible activities carried out on his behalf. But when he buys an experience, he pays to spend time enjoying a series of memorable events that a company stages - as in a theatrical play - to engage him in a personal way (Pine and Gilmore, 1999, p. 2).

The conceptual perspective of the two authors thus widens the traditional range and typology of products that organizations offer on the market (raw materials, goods, and services), indicating that they can propose types of economic offers that go '*beyond the service*', such as experience-products and transformation-products.

Therefore, it is possible to take a step forward in the debate on the relationship between touristic demand and touristic offering and, in particular, on the medium of exchange, i.e., the touristic product. Without touching on the differing perspectives of the producer and the consumer, the touristic product can be considered a composite offer made up of goods, services, information, and contextual elements targeted to the creation of engaging and memorable experiences.

When tourists travel for pleasure, there is always the more or less conscious search for an *experience*. For the tourism industry, therefore, it is a question of putting this experience requirement *at the center of their managerial actions* in order to provide the clientele with economic proposals that go *beyond the simple mix of goods and services* and that are geared more purposefully and consciously toward offering experiences designed to entertain, engage emotionally, and transform tourists. This challenge is felt by all levels and sectors of the tourism industry, whether single organizations, a group, or a system (district or place).

3. The basic assumptions of the Pine and Gilmore model

The core of the economic vision proposed by Pine and Gilmore is the model for an evolving market demand (model of the progression of economic value). According to this model, market demand inevitably

becomes saturated by a wider and wider demand and at decreasing costs (massification) but, at the same time, a new 'superior' type of demand is formed.

Within the context of American society as their point of reference, the authors assert that the massification of commodities and the shift to an economy founded on the offer of goods, as well as the massification of goods and the shift to an economy based on the provision of services have already occurred. Furthermore, they believe that a strong massification of services is currently underway and, at the same time, there is a hefty upsurge in the demand for experiences. It is Pine and Gilmore's hypothesis that the twenty-first century will be marked by the passage from the service economy to one based on staged experiences. The authors posit, as shown in Table 1, that the continual quest for variety on the demand side makes it highly likely that, in the foreseeable future, the economic offering will go beyond the experiences themselves, to become transformations. These will follow experiences and will be the answer to the predictable massification of experiences.

Tab. 1: Table of economic distinctions

Economic Offering	Commodities	Goods	Services	Experiences	Trans-formations
Economy	Agrarian	Industrial	Service	Experience	Transformation
Economic Function	Extract	Make	Deliver	Stage	Lead
Nature of offering	Fungible	Tangible	Intangible	Memorable	Effective
Key Attribute	Natural	Standardized	Customized	Personal	Individual
Method of Supply	Stored in bulk	Inventoried after production	Delivered on demand	Revealed over a duration	Lasting over time
Seller	Trader	Manufacturer	Provider	Stager	Generator
Buyer	Market	User	Client	Guest	Aspiring Transformees
Factors of demand	Characteristics	Features	Benefits	Sensations	Effects

Source: Pine and Gilmore (2000, p. 212)

According to Pine and Gilmore:

- *commodities* are functional materials extracted from the natural world;
- *goods* are tangible products that can be standardized and warehoused;
- *services* are intangible activities that can be personalized for the individual requests of known clients. Service providers use goods to service a client (e.g. a haircut) or goods owned by the client (e.g. computer repair). In general, clients place greater value in the services than in the goods needed to provide them; in other words, *services fulfill specific tasks clients wish to see accomplished but do not want to do themselves* and goods simply provide the means;
- *experiences are memorable events that engage the individual on a personal level.* The economic offering of experiences happens every time that an organization *intentionally* uses services as the stage and goods as the

support to engage an individual. Those who buy an experience attribute value to their involvement in something that the organization reveals over time;

- *transformations are individual and effective changes worked on the individual.* The offering of transformations consists in leading the individual through a series of experiences that will transform the very essence of the aspiring transformee, guiding him/her toward the objective.

In the authors' view, the shift from the business of offering commodities to that of transformations occurs in an economic value progression pyramid in which the offers of a certain value (commodities) are positioned at the base and those of greater value (transformations) are positioned at the top.

Those who generate transformations must precisely establish the series of experiences needed to guide the aspiring transformees toward their goals over a set time period. Those who stage experiences must describe the services that engage the guest and then, manage them in such a way as to create a memorable event. The service providers, in turn, must come up with the right configuration of goods that will allow them to provide a series of activities and offers with a high content of intangibles desired by the client. Finally, the manufacturers must discern which commodities to use as raw materials for the tangible products they create for users.

According to the logic adopted by Pine and Gilmore, one can say that *the economic proposal that an organization is actually offering corresponds to that for which it is being paid.* Therefore,

- if clients pay for the extracted material, then they desire commodities, and the company that commercializes them is in the commodities business;
- if clients pay for manufacturing, then they desire goods, and the company that makes them is in the goods business;
- if clients pay for activities carried out for them, then they desire services, and the company that provides them is in the services business;
- if clients pay for the time they spend and the chance to experience emotions, then they desire experiences, and the company that stages them is in the experiences business;
- if clients pay for the results of changes undergone, then they desire transformations, and the company that guides them is in the transformations business.

Given the progression of economic value and the economic value pyramid, enterprises can decide which demand to refer to, thus choosing which business to compete in and which offering to produce. Such a choice must be made based on the proper analysis of the demand and on the careful evaluation of one's capabilities and competences. The economic value progression indicates that superior offerings are more attractive to the demand side; consequently, they make it possible to set higher prices and allow for differentiated competitive positions. However, they require specific capabilities and competences on the supply side in order to be proposed and imply some form of superiority compared to the competition in order to be sustainable in the long term.

In our application of such a model to leisure tourism, we refer in particular to the offer of experiences. In fact, while touristic experiences do

contain transformation elements, they are not characterized as so intensely change-causing for this to be considered their final and purposeful objective in the touristic system. We believe it to be worthy of note, however, that in the future some tourism enterprises may deliberately choose to focus on the business of transformations, offering pathways for individual change generated by a concatenation of recurring experiences which, over time, grow in intensity and complexity.

4. Tourism as an experience: innovation in continuity

Associating tourism with the concept of experience is nothing new in studies on tourism phenomena. In fact, many authors use the term 'experiences' when describing the process of utilizing tourism services or the concept of the touristic product from the consumer's viewpoint (e.g. Rispoli and Tamma, 1996; Valdani and Guenzi, 1998; Sertorio, 1998; Brunetti, 1999; Rifkin, 2000; Middleton, 2001)

One must therefore ask oneself what conceptual innovation the experience economy perspective brings, from a managerial point of view, to the study of touristic phenomena. It bears remembering that it is thanks to Thomas Cook, who invented the first package tours, that tourism is nothing more than a "paid-for experience" (Rifkin, 2000, p. 196).

Pine and Gilmore's work stands out first of all for shedding light on consumer trends in industrialized societies, providing a useful key for understanding the evolution of tourist consumption behaviors, constantly oriented toward finding situations that are always new and surprising, or essentially, unique and memorable experiences.

In consideration of the huge debate underway, in our opinion, the most significant conceptual advancement made by the Pine and Gilmore study has to do with the offering, where they stress how critical it is for organizations working in a hyper-consumeristic context to formulate economic proposals (outputs) that are richer and able to create greater value for clients compared to what traditional goods and services are able to offer. Following along the path led by those studies that deal with the spectacularization of economic activities and the use of the theater and drama metaphor to describe and guide the management of service organizations (Grove *et al.*, 1997), the driving concept of the American scholars' model is that in order to satisfy the expectations of evermore demanding clients and distinguish oneself from the competition, companies must aim to produce offers with a higher economic value, such as experiences, using the theater model (and metaphor) as their managerial reference point.

This implies, from a management perspective, that the offering must be able to provide highly innovative answers to tourists' emerging need for experiences, *answers able to create spectacular situations in which the touristic organization or place work just like a theater.* In this spectacularization of the touristic offering, the touristic organizations or systems with a governing body become directors of experiences; the personnel and the local community become the cast of the show; and

the members of the audience are the guests. Nevertheless, in contrast to what happens in the so-called "society of the spectacle" where people do not directly take part in the spectacle but only watch passively (Ritzer, 2000, p. 115), in the touristic experience economy tourists are *engaged spectator-actors, active subjects,* guests who participate fully in the theater performance. Moreover, client participation tends to be more and more *collective*, since tourism cannot exist without the presence of other tourist-consumers (temporary community) with whom dynamic interactions take place and that sometimes lead to the birth of post travel relationships. The existence of communities of clients with similar interests inherently implies managerial challenges linked to the staging of experiences and the creation of long-term bonds with clients as single individuals but also as groups: *the value of the individual's experience is often dependent on the quality of the network of relationships ensured by the offer.*

It is obvious, nonetheless, that if carried to the extreme or, to put it differently, if the staging is blatantly inauthentic and totally unrealistic, one risks generating experiences that are not at all credible and thus, ineffective, particularly in instances of contact between guests and local communities. In the presence of models that are excessively formatted, the behavior of the hosting population could be guided by the desire to *not* mix one's own authentic and traditional culture with that of the visiting guests. Consequently, the local population would not spontaneously participate in the staged performance but rather, would tend to recite pre-determined scripts and stage "pseudo-events" (Sertorio, 1998, p. 12). These artificial situations and simulations do not foster enriching exchanges but risk banality and transformation into new forms of *commoditization*, into insipid events that are incapable of generating gratifying existential experiences.

The study of touristic phenomena from the perspective of the experience economy allows us to take a step forward vis-à-vis the traditional assimilation of the trip to the experience; it sheds light on how traveling, compared to services, is associated with situations that generate additional and profoundly different needs which the tourism industry but acknowledge and meet. The simple offer of goods and services is insufficient to guarantee tourist satisfaction; "the emotions and experiences lived" constitute the new foundation for value creation and thus, the tourism industry is called to provide tourism consumers with the experiences that they are constantly after.

If one looks to the experience economy as the new key to deciphering the tourism phenomenon, one can conclude by affirming that:

- the tourist, when traveling and sojourning, does not simply demand individual touristic goods and services (unbundled approach) or package deals (bundled approach), but wants touristic experiences that are complex, engaging, and that can be lived in a personal and participatory way;
- the touristic experience derives from the whole set of socioeconomic relationships that develop between a guest and the complex system of actors and interactions that are somehow connected to the territory where the "tourism performance" is staged;
- the touristic experience entails, for the tourist, spatial and experiential

transitions that lead to more or less lasting transformations, depending on the quality/intensity of the experience itself. All tourists, regardless of how superficial or distracted they are, will have etched into their minds images, memories, and thoughts of what they experienced while on vacation. These are personal acquisitions that have, to a certain degree, "changed the life" of the tourist, making him/her (at least in the more favorable circumstances) less ethnocentric, more able to understand diversity, capable of more cultural relativism, and less likely to be judgmental (Sertorio, 1998, p. 15).

- ultimately, the tourism industry is a natural and ideal "stage" upon which to offer economic experiences that can not only engage but also transform clients. For those who work in the tourism sector, tourist-guests are also partner-actors and the real product lies within the guest; in other words, it is the sensations and the emotions experienced by the client that represent the final output. Therefore, in designing an experience, the question must be asked: "What set of stimuli will engage the guest in memorable experiences?" and, just as in a theater performance, the dimensions upon which the experience is structured, the so-called "experience realms" (Figure 1) must be utilized.

5. An experience analysis model for tourism management

If one considers experiences as a source for the creation of value, then it becomes necessary for tourism operators to be aware of this new type of product being demanded. The tourism industry cannot offer goods and services alone, but must offer an experience that is co-created with the client-guest (Pine and Gilmore, 2000, p. 34). It is clearly evident that today's most spectacular examples of touristic experiences are tied to the entertainment industry (e.g., theme parks, themed restaurants, etc.), but one must not stop at the idea that staging experiences just means adding an entertainment component to existing offers.

The authors of the experience economy insist on this aspect, because they believe that *the personal involvement of guests is the basis of the new economy.* Thus, they strongly underscore the idea that *staging experiences does not mean entertaining clients, it means engaging them.*

In order to design, produce, and consciously provide this new economic offer, the producer of touristic experiences must therefore know how an experience is structured overall. To this end, Pine and Gilmore have diagrammed the process of engaging a client/guest, using the two most dimensions of the experience, in a model of experience realms (Figure 1).

The first dimension is the level of guest participation, represented as a continuum along the horizontal axis between two extremes:

Passive participation, in which clients neither act in nor directly influence the performance (e.g., classical music concert goers who simply listen).

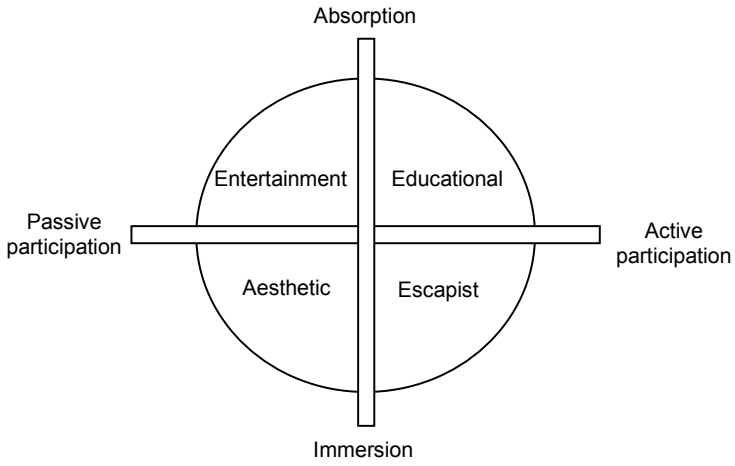
Active participation, in which clients personally act in the performance or the event that produces the experience (e.g., sports enthusiasts who actively participate in the creation of their personal experience).

The second dimension describe the type of contextual connection or involvement that links clients to the event or the performance, represented as a continuum along the vertical axis between two extremes:

Absorption, in which the experience 'penetrates' into the person through the mind (e.g., watching a film on TV, listening to a lecture on chemical theory).

Immersion, in which the person 'dives into' the experience by physically or virtually taking part in the experience itself (e.g., watching a film at the cinema along with other spectators, on a wide screen or with virtual reality simulation, taking part in a chemical laboratory experiment).

Fig. 1: Experience realms



Source: Pine and Gilmore (2000, p. 35)

The sum of these dimensions defines the *four realms* of an experience; they are categorized, according to level of client involvement, as: entertainment, educational, aesthetic, and escapist. These fields are combined in differing degrees and proportion, depending on the type of experience and guest involved, thus contributing to the creation of unique, personal, and non-repeatable events.

The degree of final involvement of the client/guest depends on both the person enjoying the experience (high or low propensity to engage in any given event) and on the organization staging the event (degree of involvement it requires).

We proceed with a description, below, of the individual realms taken separately, despite our awareness of the fact that they rarely present themselves as such, but we believe that this process of synthesizing a complex reality is indispensable to having the necessary knowledge for staging an engaging experience.

1. *The realm of entertainment:* is so classified when people passively absorb experiences through their senses, as usually happens when they watch a performance, listen to music, or read for pleasure. The entertainment field is certainly the most developed in today's world (in fact, there is an

entertainment industry), but as the experience economy grows, people will look for more and more unusual and complex experiences. By the same token, however, very few of these experiences will not include at least one entertaining moment designed to make people smile, laugh, or have fun.

2. *The realm of education experience:* even during educational experiences, the guest (for example, a student) absorbs the events unfolding before him/her, but differently from pure entertainment, education requires the active participation of the individual. In the formation process of increasing the knowledge or skills of a person, educational events must actively engage the mind (for intellectual education) and/or the body (for physical training).
3. *The realm of aesthetic experience:* in these types of experiences individuals immerse themselves in an event or a context where they have little or no influence on the latter, leaving it (but not themselves) untouched. The typical aesthetic experiences are touristic, such as standing on the rim of the Grand Canyon, visiting an art gallery or a museum, sitting in a cafe' in St. Mark's Square in Venice, etc. The aesthetic aspect of an experience could be completely natural (e.g., a National Park), artificial, i.e., man-made (e.g., a Theme Park), or something in between. However, *there is no such thing as an artificial experience;* every experience created in an individual is real, regardless of whether the source is natural or simulated.
4. *The realm of escape:* escapist experiences imply the deep immersion and active behavior of the person. Compared to entertainment and educational experiences, in this case the guest is entirely immersed in them, just as for aesthetic experiences, but instead of playing the passive role of the couch potato, the guest becomes an actor capable of having a role in the actual performance. Guests who participate in escapist experiences not only *come from* but *travel towards* a specific place or activities that are worth their time. Typical examples of this are vacationers who are not content to simply lie in the sun or watch the scenery, but get involved inphysical activities such as extreme sports, mountain climbing, or kayaking down river rapids. Another example is cyberspace which, for many, offers a break from real life, a chance to unplug from one's boring daily routine.

When guests take part in an *aesthetic* experience they want "to be" there, in the situation; in an *entertainment* experience they want "to stay", to watch and contemplate; during an *escape* experience they want "to do", to try something, get good at it; finally, in an *educational* experience, they want "to learn".

The richest, most engaging and memorable experiences contain aspects from all four realms and are most intense at the central point of Figure 1 where the various possible experiential realms intersect. When a memorable, enthralling, and engaging experience is staged, the guest cannot, in fact, be confined to a single realm. One must adopt the experiential structure (Figure 1) like a set of potential stimuli that can serve as a guide in setting the stage, as it were, and clients experience the performance in a more engaging way.

In the analysis of touristic phenomena, also, it is important to consider all four realms of experiences. Moreover, tourism involves people moving from their place of residence to a place they do not habitually go and spending a finite period of time there, so it is a consumption context in which the fields of experiences find wide application. The managerial problem that presents itself is how to be strategically aware in setting up economic proposals centered on effective experiences.

Tourism has the peculiar feature of always nurturing the *aesthetic experience* of tourists, regardless of their desire to participate or not. The aesthetic dimension of the experience is what makes guests want to come and stay in a specific place; in other words, it is tied to the "atmosphere" of the vacation.

Entertainment is one of the key components of leisure tourism. Even in those cases where guests are seeking complex and challenging experiences, they nevertheless enjoy relaxing moments of fun.

Guests often want to improve on, try, or experience all of those things that allow them to *escape* from their routine. Providers of these experiences have the opportunity to more fully engage tourists by offering them the "trial offer" in which *the tourist's enjoyment does not come from having done something well, but in having tried it*.

The purely educational component of the experience is the one least likely to appear among the list of tourists' explicit requests. It is, however, one of the most normal implicit desires, given that the combination of the aesthetic, entertainment, and escape components of a vacation creates in people the desire and even allows them to gain a fuller knowledge of their surroundings. In the future, one could foresee an increase in educational tourism as an "intelligent" use of one's leisure time.

If, in principal, tourism represents a consumption context that more "naturally" lends itself to exploring the four fields of experience for the clientele, it cannot be taken for granted that those who work in the sector are fully aware of this, nor can it be assumed that they are able to appreciate the economic and managerial implications of such a situation. In order to grasp the opportunities that the experience economy can offer to those in the leisure time and tourism business, *the physical places of hospitality, transportation, restoration, the tourism industry in general, as well as of the destinations and touristic systems must become "special places", original platforms upon which to consciously stage significant experiences that contain elements of entertainment, escape, education, and aesthetic contemplation.*

It can therefore by hypothesized that those organizations and touristic systems that are able to provide experiences capable of engaging guests by leveraging on the four experiential realms and by adapting and "dosing" them according to the target audience will be those that will gain long-lasting competitive advantage. The offering must, however, adopt a creative approach to staging their experience products, aware that *they are not simple outputs to offer consumers, but rather, are inputs for creating value for the client who must be considered a creator not a destroyer of value* (Normann, 2002, p. 111).

Hence, it is necessary to maximize the degree of tourist involvement in the creation of value, through the dual dimensions of mode (physical,

intellectual, and emotional) and function (needs analysis, production, quality control, preservation of ethical value, development, marketing, etc.). In other words, the tourist is not merely a passive spectator but is a protagonist (actor) in the touristic spectacle being staged (by a single enterprise or a touristic system). The direct involvement of the tourist occurs all along the process of touristic consumption, starting from the awareness of a need phase all the way to the activities carried out after the vacation is over (Casarin, 1996, p. 127; Savoja, 1998, p. 167). The tourist purchases and consumes (lives) the experience along with the entire set of goods, services, information, elements of historical, cultural, environmental, and anthropological significance as well as other tangible and intangible factors which he/she, as a user, puts together during the vacation. How this is done will depend on the user's own motivations, culture, value system, personality, and socio-economic condition. This notwithstanding, the elements that constitute the travel experience should not be considered on the same plane because they are prioritized, starting from a core of "essentials" to a set of "optionals" that are further removed from the tourist's primary interests. In conclusion, if one takes the theater as the experience management model, we can define both travelers and hosts[5] as actors in the same performance. This performance is founded on and carried out in the various moments of truth (Normann and Ramirez, 1995; Normann, 2002) that arise between the numerous subjects in the touristic offering (including the local community) and the clientele, set against the background of a context made up of signs, images, cultures, and groups of tourists participating in the "event" and who are, in turn, the *co-producers and influencers* of the experiences. The location of the stage performance thus identifies a *system of experience offers that produces value, based on the simultaneous and interdependent logics of a constellation of value*. Within the value constellation, the enterprise and the other subjects in the touristic offering are part of a series of co-production relationships that are characterized by high participation and involvement.

The economic actors no longer relate to each another according to the simple, unidirectional, and sequential model inherent in the notion of the value chain. The relationship between the two actors tends to be much more complex than what would be conceptually apparent from the unidirectional 'make/buy' model subordinate to the value chain. Instead of 'adding' various level of value one after the other, the partners in the production of the offering work together to co-create value through various 'co-production' relationships (Normann and Ramirez, 1995, p. 27).

The challenge for touristic management lies, therefore, in 'directing' a performance in such a way as to enhance the theatrical contribution not only of those who, like a professional cast, intentionally play a part in order to reach the audience (e.g., workers and other people who contribute to touristic production), but also of those who contribute to the performance in the role of spectators who are directly involved (e.g., tourists and their

[5] From the Zanichelli Dictionary: "Host: 1- A person who hosts others. 2- A person who is hosted". In Italian, the same word, host, is used for both of the key roles played by actors involved the vacation context, serving to confirm the deep connection between the two figures.

interactions), keeping in mind their dissimilar propensity or capacity for direct participation.

6. The touristic district as a theater for touristic experiences: moving towards a viable system

We delineate here the setting for the staging of touristic experiences (the theater). In fact, there are a multitude of "venues" (single enterprises and multiple enterprises, single locations and multiple locations, touristic systems, etc.) that are suitable for staging events for the entertainment of guests.

The perspective adopted here is district-systemic, which starts from the hypothesis that if, in tourism, the product demanded and offered is an experience that will transform clients according to their specific aspirations, then the most significant competition and strategic priority for the tourism industry in a given territory is *more and more often among touristic districts* (territorial systems geared towards tourism) rather than among individual tourism enterprises. The latter compete amongst themselves within a territory and within their respective demand segments, but at the same time, they collaborate and compete more or less consciously (along with all of the other actors operating in a particular place or touristic district) in creating the offer of experiences in a given tourist destination. Personnel who work for individual enterprises that provide services and who come into direct contact with the public may consider themselves the product (Bateson, Hoffman, 2000, p. 26); similarly, the various members and people rooted in the touristic area may be seen as the *real product* that distinguishes one offer of experiences from another. The fact that the touristic product derives from the vast contributions of a multitude of *subjects belonging to a local community who act more or less consciously in the staging of touristic experiences*, emerges from several studies and from recent legislation on this topic, all aimed at identifying the territorial and organizational confines of a touristic area located in a given territorial system(e.g. Brunetti, 1999; Tamma, 1999; Della Corte, 2000).

Italian legislation (Law no.135 of 29th March 2001) introduced the concept of *Local touristic systems (Sistemi turistici locali)* defining them as follows (art. 5):

> 1. Local touristic systems are defined as homogeneous or integrated touristic contexts that can also include territories belonging to different regions, characterized by an offering that incorporates cultural goods, scenic environments, and touristic attractions along with typical, local food and craft products or by the widespread presence of individual or associations of tourism enterprises.
>
> 2. Local entities or private subjects, both individual and associated, promote the local touristic systems through forms of collaboration with specific entities, with trade associations competing in the tourism offering, as well as with interested public and private subjects.

In one of our prior works (Pencarelli, 2001, p. 147), the concept of touristic district was introduced as follows:

> The term touristic district is used to refer to the sum of touritic enterprises and resources (environmental, historical, cultural, scenic, etc.) located within areas

that are territorially, socially, economically, and culturally homogeneous, and that present connotations that tend to be uniform from the standpoint of the offering and the demand being served. In other words, the touristic territory represents a homogeneous touristic hub that is specialized in the production-delivery of a global touristic product. The touristic district therefore defines a territorial context that has variable borders but that is a sufficiently shared reference point for both the offering and the demand. It is characterized by one or more factors of attraction perceived by tourists as distinguishing features compared to other destinations competing for the choice of where to spend their vacation, and are offered to the market in a unitary manner (more or less consciously) by the territorial actors.

The various works mentioned above refer to concepts (offering configurations, local systems of touristic offerings, districts) which imply that within a territorially defined context there exists a set of enterprises and resources specialized for tourism and connected to one another so that the final value of the totality of their activities is greater than the sum of their parts.

The various approaches recognize, though, that *not all methods are created equal*. For example, Brunetti (1999, p. 226) describes four configurations of offering: sector (primarily casual and spontaneous relationships among actors of the offer); system (more aware relationships compared to the sector ones but not highly structured); network; and constellation (aware and structured relationships, such that the offer - especially the constellation type - is governed singly). Martini (1996) and Tamma (1999) refer, instead, to a three-pronged key for interpreting a destination: fragmented (entrepreneurial spontaneity dominates and there is little integration among subject in the offer); dependent (the action of actors that demand packaged tourism is predominant and the supply side relinquishes significant quotas of power and added value); and integrated (medium to long-term collaboration between operators prevails).

From our point of view, touristic districts can be classified into two different categories so defined based on the following variables:

- the *degree of awareness* of the district actors that they are components of a more complex performance (experience) staged in a touristically significant area;
- the *level of confidence* that the touristic district subject feels vis-à-vis the overall territorial system where this confidence is often a decisive factor in building and maintaining inter- and intra-organizational relationships;
- the *willingness to collaborate* felt by touristic producers, public institutions, non-profit organizations, and local communities operating in the district. It is plausible that as confidence rises so, too, does the intent to collaborate, but this may not always be true; there could also be cases in which cooperation does not derive from high levels of confidence, but is driven by economic interest and competitiveness among partners;
- the *presence or lack thereof of one or more leading figures able to strategically govern the district,* establishing survival techniques and guidelines for long-term development.

As awareness, confidence, and collaboration increase, and strategic *metamanagers* appear on the scene, touristic districts evolve from *spontaneous and casual* forms (districts in the casual or broad sense) to ones that are *more aware, more organizationally structured, and governed in a unitary logic* (districts in the narrow sense). By the same token, the reverse also happens as confidence, the propensity to collaborate, and unitary governance methods diminish, de facto districts tend to dissolve and revert back to spontaneous forms that are devoid of structure and unitary governability.

When district actors are unaware (or don't want to know) that they can contribute to producing a unitary experience that the consumer takes into consideration from among the various alternatives, and when there is no metamanager who can guide and set up strategic paths for the area, then it cannot properly be called a district in the narrow sense. Instead, it could be labeled a *casual district* (informal network of weak ties with no individual governance center), even though it could be perceived by the demand side as something similar to a district because it does hold elements of attraction to a specific touristic area despite the inability of the supply side to understand and govern them.

From the supply side perspective, a territory identifies a *touristic district* as such when the subjects that belong to the area are *sufficiently aware of acting in a concerted effort to produce a unitary touristic product-experience* and align their individual behaviors with this awareness (strategic intentionality), looking to find stable forms of cooperation, if possible, that follow networking formulas with or without a strategic pivot but that are somehow aimed at the unitary evolution of their structural components. Thus, the district reveals a cultural imprint and a way of carrying out and managing touristic activities that are highly convergent, so as to avoid all tendency toward spontaneous and fragmented initiatives. Districts, in the narrow sense, can arise from two different relational structures: the distributed *network* and the *constellation or aristocratic network.*

The distributed *network* environment is intentionally collaborative and characterized by mutual confidence; the actors are highly aware that they are producing a particular product whose competitiveness depends on the ability of the district subjects to act collectively towards achieving common shared goals. The connection between and among actors is no longer merely random or casual, but appears to be more deliberate; it is the fruit of behavior that is intentionally geared towards consciously activating relational structures. This type of district is called a network when each actor is equally placed in relation to the others, and when there is no recognized, stable strategic leader or director that emerges in the competitive situation. The network is a configuration in which all of the actors are connected equally, horizontally, and all of their objectives converge toward common goals. It is potentially the richer of the two configurations because the various actors each contribute with a superior degree of entrepreneurship. Nevertheless, the network is the more difficult of the two to establish successfully, given that it is generally no easy feat for numerous and heterogeneous subjects to fully share and achieve common goals.

The *constellation* environment, like the distributed network, is also intentionally collaborative and characterized by mutual confidence; in this

case, too, the actors are highly aware that they are producing a particular product whose competitiveness depends on the ability of the district subjects to act collectively towards achieving common shared goals. In the *aristocratic network*, though, there is greater asymmetry among the members, in that there is one subject that stands out in a different position vis-à-vis the others in terms of function or role. This subject acts as the guide or coordinator of the constellation, fulfilling a strategic governance role and guiding the group's basic choices that are decided collegially through reciprocal interactions.

Artificial districts (resorts and vacation-resorts) are an extreme type of constellation. In this case, the territory is monopolized by a single subject. There is no fragmentation of the ownership among independent operators, which is typical of spontaneous tourism or of bottom-up constellations, but there is only one subject that has designed and built the district top-down and that maintains control and decisional power over the entire organization. In this situation, similarly to what happens within an enterprise, internal relations disappear and are replaced by hierarchical relationships. The operators' awareness and the governability of the system are thus guaranteed by the very structure of the hierarchical relationships that center around single ownership. The local community plays practically no independent role, and confidence and collaboration are not spontaneous as they are governed by the management through more or less sophisticated internal marketing techniques.

In sum, relationships within a touristic territory can develop and/or evolve along a continuum that goes from casual districts to constellations and, in the most extreme forms, to artificial districts. Similarly, the progression can go from evolution to involution when certain typologies of district weaken the degree of unitary governability and implode, becoming less well defined and morphing into situations of sectorial spontaneity.

In order to further hone the definition of the conceptual and operational scope of the touristic district model adopted in this work, and to pinpoint the meaning of the term *system*, so widely used in tourism literature and legislation, it would serve our purposes to ask if and to what degree the notions of touristic district or of touristic system represent viable systems according to the paradigms of the systemic approach to studying enterprises. To this end, we look to Golinelli (2000) who offers the following definitions:

- *system* (p. 85): "a physical structure, equipped with physical components qualified as predefined, logical and interactive components, which is oriented towards a specific purpose";
- *viable system (p. 110): "a system that survives, remains unified, intact, and homeostatically balanced both internally and externally, and which possesses mechanisms and opportunity for growth and learning, for development and adaptation, i.e., for becoming ever more effective in its context";*
- *the context outside of the enterprise viable system* (p. 185): "a set of external viable systems that can present the following features:

1. *embryonic systems* (markets), where it is not possible to identify a governing body capable of influencing the behaviors of the subjects in

the system that is therefore not vital;
2. *developing systems*, where the viable system identity can emerge in the presence of a governing body capable of guiding and influencing the evolution of the system to ensure its survival;
3. *viable systems*, where their identity as such is clear and there is a governing body in place to guide and establish the evolutionary pathways of the operating structure".

In the wake of Golinelli's work (2000) we can observe that the here proposed typologies of touristic district configure the context that lies outside of touristic enterprise viable systems; it can be defined as both a *significant* and an *influential* (p. 171) super-system by virtue of the fact that it holds and constrains resources (territory, information, public funds, etc.) that are critical for the survival of individual enterprises. In particular, the district model can dovetail with the concept of *embryonic system* when referring to casual districts in a broad sense because in neither case is there any subject leading the unitary governance of the entity in question. When referring to the concept of district in the narrow sense, instead, we adopt the notion of *developing system*. In it, the evolutionary pathways of the network could be bottom up, as relationships are progressively formed among enterprises so as to create distributed networks or aristocratic networks (constellations) having, for a time, governance entities capable of overseeing the activities of the system's operating structure, or they could be top down, as a given enterprise (the one that designed and created the network) establishes itself more permanently as the governing body (as in the case of artificial districts). This said, the concept of a district in the narrow sense can also mesh with the model of a *viable system when "the governing body clearly emerges and builds itself up, makes the internal operating structure powerful (i.e., well-integrated), and contributes to the identity of the whole*". This is the model that serves as inspiration for the market-oriented district governance proposal outlined in the paragraphs that follow. We are well aware that in a touristic area the components of the operating structure (tourism enterprises, territory, context features, etc.) are not governable *in the same way as* the production factors of an enterprise viable system are, but that in adopting the perspective of a viable system one should act *as if* they were, so as to guide the evolution of the district from developing system to viable system.

In light of these observations, one can further note that the notion of touristic systems in the extant literature does not always refer to the systemic paradigm recapped here, but uses as its point of reference a non-viable system (Della Corte, 2000, p. 126). In the viable system paradigm, a system is viable if: a) it is open; b) there is a governing body and an operating structure (a set of real, financial, social, cognitive, and temporal elements); c) achieving the objectives and ensuring survival is strongly influenced by the dynamics and dialectics of the relationship between the governing body and the major super-systems (for touristic systems these can be political-administrative systems at the provincial, regional, national, or European community level, financial systems, distribution systems, etc.); d) there exists the possibility of dovetailing with one or more super-systems based on whether the conditions exist for compatibility and integration.

7. Governing body and operating structure of touristic districts from a viable system perspective: who governs what?

7.1 The governing body in the district

In light of what has been discussed above one can state that, in Italy, many of the territorial areas that are touristic destinations can be classified as casual districts, or embryonic systems. This is due to both the meagerness of awareness, confidence, and collaborative spirit among the subjects operating within the territory, as well as and above all, to the lack of a governing body able and capable of defining and setting a strategic course for all of the elements that constitute the physical and operating structure of the system (Pencarelli and Civitarese, 2000; Costa, 2002). Italian tourism, as a matter of fact, is administered by public entities operating nationally (Organizzazione Turistica Pubblica-OTP: *Public Tourism Organization*), regionally (Organizzazione Turistica Pubblica Regionale-OTPR: *Regional Public Tourism Organization*), and locally (Organizzazione Turistica Pubblica Locale-OTPL: *Local Public Tourism Organization*). Nevertheless, these bodies and institutions are not governing bodies per se that are nominated by the express will of owners or 'strong social interlocutors' as it were, able to both nominate and revoke administrators according to the results achieved by the system and especially in the position to direct and determine development pathways, aware of the intricacies of the operating structure (in terms of the various operators and district resources available), tied to the system only by a generic and weak 'sense of belonging'. Actually, in many cases, territorial areas include enterprises, resources, and contextual factors that represent an aggregate (set) of elements having a certain degree of homogeneity; they lack, however, *the structural requisites of a viable system because there is no specification and sharing of the role that each element plays in the systemic whole - in other words, it is not possible to discern a complex unit made up of various components and the relationships among them* (Golinelli, 2000, p. 82).

The tasks of the governing body are to achieve "an overall level of importance deriving from the combined importance of the super- and sub-system components" and to "ensure that the system develops as a unit in the aim of gaining the competitive advantage that will offer a greater guarantee of survival to the system itself, thus increasing its degree of vitality" (Golinelli, 2000, p. 213). In order to attain these objectives, the governing body must *possess high entrepreneurial competences associated with the power to design, redesign, control, and integrate the structural elements of the system (individual enterprises and institutions, territory, attractiveness factors, context, etc. and their organizational relationships) based on their consonance with and relevance to the area super-systems (demand, legislative, financial, labor market, etc.) or with the area sub-systems of the operating structure.* The governing body acts as a filter for the influences, the constraints, and the expectations coming from the super-systems and the sub-systems, and it seeks opportune conciliation and dovetailing of the conditions deriving from both intersystem levels. Such crucial actions by the governing body greatly facilitate the achievement

of a high level of distinction and systemic effectiveness and help ensure the long-term survival of the system.

It is clear that, although Italian public tourism organizations do regulate, stimulate, and coordinate the subjects involved in producing the touristic product, they cannot exactly qualify as governing bodies of a district/viable touristic system because, among other reasons, they have no institutional role in marketing the touristic product which is undertaken by private entities. In the aim of obtaining a district configuration, then, it would be useful to endow districts that are being newly instituted and, particularly, the many casual districts spread throughout the touristic areas with a *governing body* that displays real leadership capacity and *meta-management* skills, including marketing which has not been traditionally undertaken by public entities in charge of coordinating tourism destinations (Pencarelli and Civitarese, 2000; Molteni and Sainaghi, 1997, p. 93).

In order to carry out its highly complex and multi-faceted governance functions (design, coordination, support, consultancy, training, monitoring, marketing, promotion, etc.), the leader-subject should not only possess quite variegated competences but also be acknowledged as such by the district member subjects. For this reason, the role of architect and coordinator of the touristic district system should be carried out by a management figure emanating from a *mixed subject*, composed of both public and private entities and supported by private juridical forms suitable for fostering ownership. The presence of the public is important for facilitating the acquisition of resources (especially financial ones) and the modification of contextual and infrastructure factors (territory, roads, maritime ports, airports, etc.), and for obtaining the proper consensus and involvement of local entities as well as other social interlocutors within the territory. Moreover, one should keep in mind that *touristic districts are systems that are characterized by strong public regulation and that count, among their structural components, multiple public goods;* therefore, the setting up of systemic offerings cannot overlook or do without the public organizational component, often a *decisive factor in determining competitive advantage*. The presence of private entities in the ownership balance is important in favoring the involvement of private tourism organization managers and in enhancing the entrepreneurial and managerial competences of those who are in direct contact with tourists in the moments of truth. The governing body (board of directors) should be lean, composed of few actors with clear duties and responsibilities mandated by the numerous and varied components of the public/private owner-subject and enabled to act rapidly and effectively.

In sum, it is a question of imagining and managing the touristic area by fully adopting the viable system approach, in which the governing body exists and "really does govern" as it has the capability and ability to plan, enact, control, and fine-tune the district's and its structural components'[6] strategic pathways while fulfilling their need for survival and competitive

[6] Management of the structural components of a touristic destination-viable system will differ based on the degree of legitimacy and authority that the governing body holds over them. For example, while influence over touristic enterprises is limited to orientation and unitary strategic action, initiatives concerning territorial infrastructure or macro marketing will have a greater impact.

strength. In the experience economy perspective, the governing body needs to take on the directorship of the performances that will be staged for guests in the territorial theater where the touristic district comes into being.

7.2 The components of the operating structure

Once it has being determined who governs, one must then ask what the object of the activity is, or rather, what the *structural components* are that qualify the collection of capabilities incorporated into the system (operating structure, from the viable system viewpoint) that are apt to actually produce the offering. To provide an answer to this query, and in order to govern a touristic system from a marketing perspective, the first step must be to identify *the experience product to be offered* (through the market analysis of experiences, and through the definition of the market segment and of market positioning); *and this products must be associated with a touristically significant territory*, one that has the necessary features to be a candidate for the staging of offering on the significant and distinctive touristic experiences market. The subsequent step is to arrive at a set of features that a touristic system should have (or should procure) in order to stage experiences that are able to engage consumers in all four experience fields described above.

The object of the targeted activities is tied to the product of the touristic system, i.e., the touristic experience which is a unique and one-of-a-kind event that takes place at a certain time and in a certain place (the stage), fruit of the interaction (co-production) among the guests, the hosting community, and the context. The ability of the touristic district to satisfy the changing and varied expectations from the demand side will depend on the fundamental capabilities linked to certain specific structural factors and on the compound capabilities deriving from the intra- and inter-systemic interactions. They further depend on the degree of flexibility and adaptability of the district (Golinelli, Gatti, and Vagnani, 2002).

According to the experience logic each touristic experience is unique and non-repeatable because it is generated by the interaction between a guest and the package of services, good, and commodities created by the system with the support of the contextual platform and the contribution of the guests themselves, the characterizing features of the experience production system are rooted in the territorial touristic system. The latter, as a mix of offerings and the object of acts of governance, must possess a series of requisites that make it attractive to target tourist groups. It must be: Attractive, Accessible, Hospitable, Appropriate (as a setting), and Lively.

The *attractiveness* of a territory is determined by the presence of factors of attraction within the territory. These constitute the focus of the touristic experience offered, in that they are the core component around which the experience is built, and they represent the primary motivation for guests to travel to a specific territory. Nevertheless, no place is touristic on its own; it only becomes so following a series of cultural transformations and changes in collective thought processes due to the evolution of the image of a place in the consumer's mind.

The *accessibility* of the territorial touristic system indicates the ease with which guests can access and enjoy the experiences staged there. We believe that this feature can be broken down into the following three aspects of accessibility: physical, economic, and information.

The *hospitality* requisite indicates how coherent the territorial context is with the experience activities planned, or, in other words, how suitable the touristic activities are for serving as the background for the planned staging of the experience. Thus defined, hospitality implies the presence of all those goods and services that either support or facilitate the physical realization of the touristic experience in a given destination (accommodation, restoration, etc.).

The *appropriateness of the setting* expresses the ability of the territory that is home to the touristic system to "immerse" guests in the experience to be staged. As such, it is likely to be determined by the general landscape or environment (natural or man-made) of the territory. One cannot overstress the importance of even the smallest detail, because it is often due to small aspects in stark contrast with the general context that, alone, can compromise the credibility of a setting.

The *liveliness* factor represents the cultural and social liveliness of the territory that is either expected or required by the experience. Essentially, liveliness is tied to the human factor for it is determined by the numbers, crowding, and movement of people along with the liveliness and warmth of the social relationships that develop among them. Thus defined, liveliness is determined by the people that work in touristic facilities, but much more so by the local population and by tourists staying in the area itself.

Once it has been determined what features a territory must possess in order to be a suitable stage for a specific touristic experience, individual factors and/or resources that determine those characteristics must be identified. To this end, we propose a concise analytical framework to map the resources and competences needed to stage experiences (Table 2 3), providing the literature references for more detailed descriptions of the various structural components of the system.

Tab 2.3: Table of factors/resources of a territory dedicated to tourism

Territorial features		Factors and/or resources	
Attractiveness		Attractiveness factors	Local Culture Confidence Information Image
Accessibility	Physical	Infrastructure and means of transportation	
	Economic	Economic burden (Cost)	
	Information	Comunication tools	
Hospitality		Tourist services (Hotel, restaurants, ecc.)	
Appropriateness of Setting		Natural and man-made environment	
Liveliness		Local popolation and Tourists	

Source: Our data processing

The importance of the factors that are directly attributable to various territorial features has already been highlighted by the pertinent economics- and business-related literature (Della Corte, 2000). In confirmation

thereof , in an experiential perspective, we underscore the importance of 'transversal' factors/resources, to wit, Local Culture, Confidence, Information, and Image. We consider these to be transversal because they act on the perception of all five characteristics that define the ability of a territory to act as the staging area for touristic experiences:

- local culture is taken to be the set of norms and values that are the fruit of the history, traditions, and customs of a specific territory and its people. It denotes the territorial climate and guides the strategies and behaviors of individual actors. Trust makes up the real premise and the primary condition for the existence of inter-organizational cooperative relationships (Pencarelli, 1995, p. 143). "In fact, cooperative relationships are social ones for which trust is a stronger and more efficient unifying force than any hierarchical or market mechanism; the trust resource is therefore one of the key resources of every successful industrial district". (Pencarelli, 2001, p. 143);
- information represents a key resource for the governance of the operating structure in that it makes it possible to connect the various components of the system, thus increasing their awareness of the unitary evolutionary objective of the system. Externally, information facilitates the search for and the attainment of systemic consonance and resonance with the most important and influential super-systems in the touristic district. Image plays a fundamental role in staging experiences because it is both a filter that affects the perception of the quality of the experience (on the demand side, but also on the supply side within the territory) and a position management tool for the territory.

Based on the resources needed to stage the target experience, the governing body within the system can specify both the resources/constraints that are present and governable inside the structure of the system and those outside of it. This means that the entrepreneurial idea of a meta-manager must gradually evolve from a general and abstract vision toward a concrete one, as the connections and relationships that are necessary to acquire the capabilities and systemic competences for staging experiences emerge from the whole structure of the system (Golinelli, 2002).

In a touristic territory, depending on the type of experience that is being staged, there should be *a coherent and organized combination of key factors that qualify the operating system as a viable system*. Such structural components should therefore not only represent constraints for strategic action (static factor in the resource based view), but should also be the objective of any project geared toward qualifying a territorial area as touristic, from the standpoint of economic governance according to viable system logics. Consequently, such elements should be linked by virtue of their complementarity in pursuit of common strategic goals. Should the structural components enter into conflict (e.g., high accessibility could be detrimental to environmental quality, or overly numerous and active tourists could provoke resentment in the local population, or an overly positive image could create excessive expectations on the demand side, and so on), a better combination and blending of these elements becomes necessary. Depending on the experience that one aims to offer guests, various elements will be harmoniously combined, emphasizing the

information, the image, and the culture factors (model for the conscious management of the experience produced) and avoiding conflicts, and trying to make sure they all support one another. This is why the governing body is called to formulate and implement a territorial tourism marketing plan that is capable of enhancing, selecting, and mobilizing the components of the district operating structure in a viable system approach.

7.3 The geographic extension of the district

Once the territorial elements needed to stage experiences have been defined, the *territorial boundaries of the touristic system to be governed must also be defined*.

The size of the touristic territory will, in fact, influence the qualitative and quantitative composition of the economic and touristic operators, of the tourist attractions, of the public entities, of the populations involved, and of all the other contextual factors.

The size of the district is a relevant factor for both the supply and the demand sides.

On the supply side, identifying the territorial context that has the potential to produce certain touristic experiences and that is also governable as a unit is a key factor in setting up touristic systems. Delineating the territory of the system of reference is fundamental for giving the actors the awareness they need to be motivated to invest their resources, their efforts, and especially, their confidence into activating cooperative actions to stage experiences in any given territory.

Along these lines one can adopt the view proposed by Brunetti (1999, p. 183), according to whom:

> A possible criterion for delineating the *minimum extension of the territorial unit* that is touristically significant seems to be the presence of at least one *factor of attractiveness* that defines a certain place, along with *activities and tourist services* that make enjoyment of it possible, as well as a certain amount of *information* that contributes to enhancing its visibility. The main requisite consists in the attractiveness factor, or combination of attractiveness factors, being of such intensity to suffice in justifying, in principle, a stay in the place where it is located.

Identifying the territorial homogeneity, environmental, anthropic, cultural and touristic attractiveness factors should nevertheless, in our opinion, be carried out not only looking at whether a district aggregation in able to actually produce a touristic experience, but also approaching it from the point of view of final demand. It is opportune to also pay attention to the *marketing potential of the offering in national and international distribution channels.* Indeed, one cannot overlook the fact that, when a very limited portfolio is proposed on the market (sometimes only one product can be offered, targeted toward very narrow segments of world demand), both attractiveness and contracting power with commercial intermediaries are lost. In cases of touristic systems offering a single product or a range of products that is narrow and shallow, it would seem preferable to *keep the production aspects, where the territorial size of the district is also modest, separate from the distribution ones*, which are on a greater scale and the range of products offered is wider and more varied.

From the standpoint of demand, the geographic extension of the district is also important in light of the fact that touristic demand usually identifies touristic products (experiences) as *multi-level products*; in other words, they are perceived as equally legitimate products at different possible degrees of territorial aggregation (Brunetti, 1999, p. 183; Pencarelli and Civitarese, 2000).

On the demand side, in fact, the demarcation of the territorial boundaries is linked to tourists' ability to associate a given area - having specific attractiveness factors for one or more touristically significant places - with a *particular touristic product* (e.g., the Montefeltro district, an area that includes territories and places in the Marches, Tuscany, and Emilia that share a common history, landscape features, and relatively uniform contextual factors). This ability may depend on *how well-known* the district is on the tourism market thanks to predetermined *communication policies* or *word of mouth* that has spread because of past tourist flows through the area. Name recognition is therefore a function of the actions undertaken by the tourism industry to build and communicate signs and messages to consumers and it is also a by-product of the holiday experiences had by other tourists in the touristic district. This fact, in turn, may depend on the length of time that the place has been a proposed destination and also on how far it lies from the source of major demand flows.

The various levels of perception of a territory as a stage for touristic experiences can thus be discerned according to:

- *proximity* to the areas of provenance of the demand;
- degree of *name recognition* achieved;
- length of *time* on the market.

From the demand's point of view, as fame, time on the market, and proximity increase the extension of the territorial confines of the touristic district shrink. Therefore, one can state that the problem of identifying the territory of reference for the touristic system can be faced in two interrelated phases.

The first consists in taking into consideration the issue of the *market relevance of the touristic district,* in terms of its ability to put on performances (stage experiences) that can satisfy the needs of guests belonging to the targeted demand segment(s) better than other competing touristic systems. The territory around which the touristic systems pivots can be considered a relevant stage, in terms of market-oriented governance (Grönroos, 1994), for the staging of complete touristic experiences if it possesses one or more distinctive factors of attraction (Attractiveness) that make it visible and enticing for a sufficiently high number of potential tourists to satisfy the necessary requirements of the target market(s).

The territory must also possess complementary and auxiliary factors in order to meet the *core needs* of the reference target for the experience (Accessibility, Economic Activities, Environment/Context, and Liveliness). That is to say, it must satisfy what Brunetti identifies as the key requirement of a district: "The key requisite consists, then, in the fact that the attraction factor or set of attraction factors are of such intensity as to suffice, alone, to justify, in principle, a stay in a place where it is located".

Contrary to Brunetti, however, *we do not consider this requisite the key aspect of a district, but see it as the critical aspect of the touristic experience.* In other words, every experience is pulled by an attraction factor (an obvious one) and subsequently needs a whole series of complementary and auxiliary factors present in the district to allow additional and different performances.

In keeping the theater metaphor, one can affirm that a stage company that is meant to last over time cannot be built around a single performance. It is the combined talent of the actors, of the director, of the technicians, and all of the other company members, their mutual respect and trust, as well as the convergence and complementarity of their artistic and organizational skills that build the foundation for establishing a group. The company will put on various performances according to its artistic tastes and the desires of the audience. Ultimately, the same company may stage several performances and a single performance may be put on by several companies.

Now, for the second phase: this one *regards discerning the territorial dimension and the operating structure (the company) of the district which will allow the unitary governance of the territorial touristic system in a market-oriented approach. One must establish which components are to be utilized by the governing body to stage the experiences that will satisfy the demand.* The touristic system must then be extended so as to minimize the organizational and physical gap that exists between casual districts (embryonic systems) and districts in the narrow sense (developing systems and viable systems).

From our point of view, considering that the governability of a territory for touristic purposes increases proportionally as tourist service operators gain increased awareness of belonging to a territorial system and as their trust in the organization and/or rules that govern it increases, a touristic system must represent a territory that is not too large, one that already has a strong identity, a relational network, and where trust is widespread. In this way, relationships built among the various district subjects are both direct and personal, and therefore, more in keeping with the "local culture" concept that characterizes the Italian socio-economic system.

There remains the problem of which entity decides the size of a touristically significant territory. On this issue Italian lawmakers have passed the baton to the regions and to the tourism operators therein, thus allowing wide margins of freedom for spontaneous and bottom up initiatives. We believe that the delineation of the geographical confines of a touristic system should follow the viable system paradigm where a governing body, an operating structure, and a reference market are clearly present. This also serves to overcome the chronic problem of the *lack of strategic governance* that plagues Italian touristic districts.

For systemic effectiveness to be achieved it is not be assumed that the topmost strategic priority should be to first identify the market and then set up an offering that can satisfy demand (opportunity driven strategic approach). At times, and perhaps in most cases, the governing body must start with enhancing those 'natural' district operating structures that already exist and are not easily modified (starting from human and territorial resources), either because of financial constraints or for reasons tied to the 'environmental sustainability' of the intervention needed to strategically orient (reorient) a given territory (e.g., to streamline or augment the current

product portfolio). In this case one must look at which segments of world tourism demand could be attracted to the existing district system and then decide what to stage, keeping in mind and striving to maximize the potential of the available attraction factors (resource-based strategic approach) (Golinelli, Gatti and Siano, 2002). Finally, while this work aims to apply the marketing concept paradigms to the touristic district conceived as a viable system, we believe it is necessary to underscore the risk of *making conceptual* changes too lightly when taking principles of business administration and transferring them to much wider systems such as territorial and touristic ones. Therefore, having clear market segments as reference points for staging experiences is, in fact, a *priority in marketing touristic destinations*, which the extant literature on the subject has rightly stressed (Heath and Wall, 1992), but one cannot ignore or underestimate the importance of the presence of attraction factors in making decisions at the touristic system level (Caroli, 1999; Della Corte, 2000).

8. A holistic governance model for touristic districts: the total relationship marketing perspective

To have the governance of an experience-staging touristic district be consciously market oriented requires a process of marketing planning (Cozzi and Ferrero, 2000) aimed at the final client. There must also be suitable policies in place that are geared towards connecting the internal and external actors for the optimum utilization and exchange of resources in the territory where the viable system is anchored.

Coming back to the theater metaphor (or management model), we could affirm that the viable system's governing body should take on the role of playwright and director of the territory that serves as a stage[7], and, as such, should guide the company of actors or the cast (business operators, local population, and other subjects in the territory, including tourists) in staging the experiences that actively involve the public (guests) in a memorable way.

In order to adequately carry out its tasks, the governing body must possess diverse managerial skills so that it can integrate the consolidated marketing management tools into the more complex and broad problem of managing systemic relationships (in both sub-systems and super-systems). The managerial paradigm believed to be best suited to the types of issues to be dealt with is that of relationship marketing (Peck *et al.* 1999) and especially, Gummesson's holistic, total relationship marketing (Gummesson, 1999). This approach to marketing goes beyond the traditional *marketing management* perspective (management *of* the market), leaning towards the concept of *marketing oriented management* (management *oriented to* the market). Relationship marketing is 'marketing based on relationships, the network, and interaction.' It is assumed that marketing is immersed in the total management of the network of relationships, at the single enterprise

[7] In this article, we incorporate in the term stage not only the physical stage itself, but also the other components of the theater and of the *scenery* ("2. All of the scenery components mounted for a performance". Zingarelli Dictionary, Zanichelli, Bologna, 1973).

and organization level as well as at the market and society level. It aims to build, develop, and maintain relationships in the long term with all clients and all of the other stakeholders. According to this marketing concept, value is co-created by all parties involved. Consequently, the managerial approach adopted transcends the lines of demarcation between functions and specialized disciplines; it adopts a *holistic viewpoint* which, at the district level, implies a *network marketing* approach in which there are no buyers and sellers but rather, *partners who exchange resources to jointly undertake interrelated activities geared towards the staging of experiences*.

Basically, the total relationship marketing philosophy goes beyond the classic paradigm of the 4Ps of marketing management, incorporating it and orienting it towards a broader perspective that sees the end user as just one of many targets of marketing actions. According to this model, if marketing activities are to be completely effective, they must be aimed at the various subjects, both internal to (sub-systems) and external to (super-systems) the system, whether it is an enterprise or a district (network). In other words, an integrated, organizationally widespread, and culturally holistic managerial philosophy must be adopted; it must be suitable for system-wide application and therefore leaning away from myopic marketing logics that are only focused on the final client and ignore the interdependent contribution brought by all system (and/or subsystem) actors to the value creation process.

Finally, with reference to theater-inspired management of touristic systems, the task assigned to the governing body is to provide an answer to the questions *To whom?, Why?, What?, How?, Who?,* and *Where?* in the holistic management of the complex system of staging touristic experiences. Depending on what type of experience is being offered to guests, the director will have to harmoniously combine and enhance the available or procurable territorial resources in such a way as to not damage the ecosystem, and must not engage in an excessive spectacularization of the offering in order to avoid negative consequences for both the demand and the territory. It is for this reason that the governing body is called upon to formulate and implement a touristic relationship marketing plan that can enhance, select, and mobilize the components of the district operating system in a viable system perspective that is subordinated to the system's survival and sustainability over the long term. The total relationship marketing model, albeit with the transferability limitations inherent in any managerial model designed for enterprises, appears to be sufficiently apt for application to viable system touristic districts.

9. Applicability of the experience economy concept to tourism management: post-dated considerations

Taking advantage of the translation into English of the original 2002 contribution, the text was thoroughly revised and a sizeable portion of the notes were eliminated (making it lighter and more readable); at the same time, the current literature was reviewed in order to shed light on whether and how the experience economy concept (Pine and Gilmore,

1998) has affected managerial studies on tourism. The question we sought to answer was: How much and how has the experience economy model that we adopted in 2002 as a conceptual approach to observing touristic phenomena become widespread in touristic management literature?

In order to answer this research question we opted to conduct a literature analysis by means of a "systematic review" (Tranfield *et al.*, 2003).

Methodology chosen for the review

An analytical review scheme is necessary for systematically evaluating the contribution of a given body of literature (Crossan and Apaydin, 2010). Systematic reviews are conventionally understood to have specific characteristics: an explicit study protocol, addressing a pre-specified, highly focused question(s); explicit methods for searching for studies; appraisal of studies to determine their scientific quality; and explicit methods, including descriptive summary or meta-analysis (where appropriate), to combine the findings across a range of studies (Dixon-Woods *et al.*, 2006). Although this methodology is not without challenges, such as difficulty of data synthesis from various disciplines, insufficient representation of books, and large amounts of material to review (Pittaway *et al.*, 2004), we felt it was important to have a methodology that could allow us to conduct the review in a solid way. A systematic review uses an explicit algorithm to perform a search and critical appraisal of the literature. Systematic reviews improve the quality of the review process and outcome by employing a transparent and reproducible procedure (Tranfield *et al.*, 2003).

Description of the methodology

We followed the three-stage procedure described by Tranfield *et al.* (2003, 215): 1) planning, 2) conducting, 3) reporting and dissemination.

During the planning stage, we defined the objectives of the research and identified the key data source. Our objective was intentionally broad and somewhat standard for such types of comprehensive reviews: to understand to what extent the *experience economy* concept was utilized in the literature. While fully aware of its limitations (Bakkalbasi *et al.*, 2006), the authors chose to use Google Scholar because it has a wider database (including peer-reviews and books), making it possible to find citations from "minor" journals published in languages other than English and not currently listed by "Scopus" or "Web of Science". Another point that mitigates the limitations of this tool is that the material analyzed consists of recently published works (from 1998 onward). The analysis does not have start date; it ends with the last search in the study: 31st October 2016.

The second stage of our systematic review process, execution, consisted of five steps: identifying initial selection criteria - keywords and search terms; grouping-publications; compiling a consideration set; classifying the results; and synthesis. The first three steps pertain to the collection and organization of the data, and the last two steps involve data processing and analysis.

Identifying Initial Selection Criteria: Keywords and Search Terms.

A comprehensive search differentiates a systematic review from a traditional narrative review (Tranfield *et al.*, 2003).

The research was conducted using Google Scholar for the following search strings: "experience economy" pine gilmore, "economia delle esperienze", "economie d'expérience", "economìa de la experiencia" with no limitations whatsoever regarding language, research area, or type of source.

The keywords were used as a selection criterion for the topic (title, keywords, or abstract), resulting in an initial sample of 180 publications. The search revealed the existence of contributions that use the term "experience economy" but then elaborate the work in other languages (especially Chinese and other Asian languages); these works were not explored for content by the authors, due to the language barrier.

This initial set was then fixed as the basis for all future analysis.

Grouping Publications

The first subdivision was by language; the publications were classified into 4 groups (Table 3): 1) articles in English; 2) articles in Italian; 3) articles in French; 4) articles in Spanish.

Tab. 3: Works classified by language

Language	N. contributions	N. citations
English	153	15686
Italian	7	430
French	2	42
Spanish	18	130
Total	180	16288

Source: Our data processing

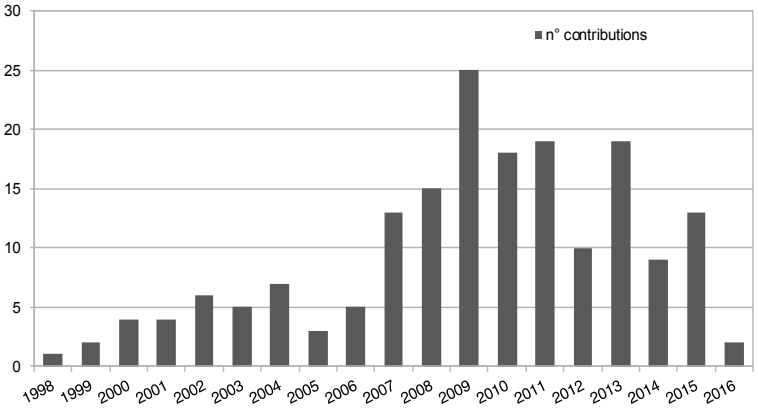
The second subdivision was by year so as to show the chronological order of contributions and related citations (Table 4; Figures 2 and 3).

Tab. 4: Works classified by year

Year	N. contributions	N. citations	Average citations
1998	1	3999	3999
1999	2	5720	2860
2000	4	189	122.25
2001	4	20	50
2002	6	501	83.5
2003	5	142	28.4
2004	7	538	76.86
2005	3	66	22
2006	8	261	52.2
2007	13	1221	93.92
2008	15	470	31.33
2009	25	1208	48.32
2010	18	250	13.89
2011	19	636	33.47
2013	19	237	12.47
2014	9	109	12.11
2015	13	78	6.00
2016	2	0	0.00
Total	180	16288	90.49

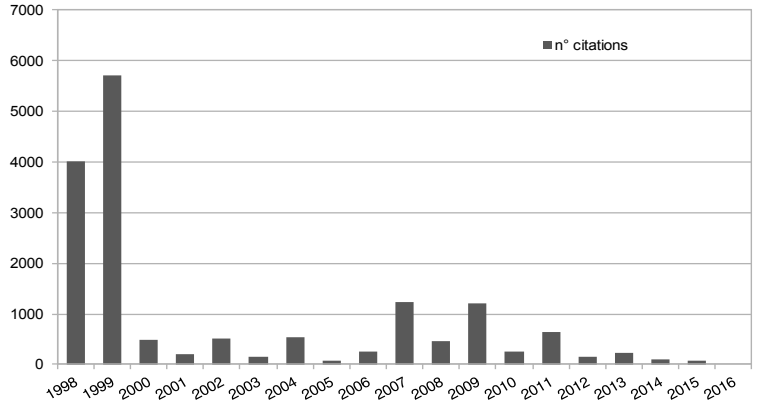
Source: Our data processing

Fig. 2: Works submitted per year



Source: Our data processing

Fig. 3: Citations received by year of publication



Source: Our data processing

The third subdivision was by number of citations (n), further classified into 4 groups (Table 5): 1) n< 10; 2) 9<n<50; 3) 49<n<100 4) n>100;

Tab. 5: Works classified by number of citations

Classification	N. citations
X<10	88
9<X<50	51
50<X<100	19
X<>100	22
Total	180

Source: Our data processing

The fourth subdivision was by reference to tourism in the work (title, keywords, abstract), further classified into 2 groups (Table 6): 1) tourism-related studies; 2) studies related to other fields.

Tab. 6: Works related to tourism

Language	Tourism	Other fields
English	35.70%	63.30%
Italian	14.00%	86.00%
French	0.00%	100.00%
Spanish	61.00%	39.00%
Total	37.00%	62.4%

Source: Our data processing

Finally, the last subdivision was for the most-cited works (at least 50 citations) were analyzed in order to discern the authors that were most influential in the international debate (Table 7).

Tab. 7: Most-cited authors (with at least 50 citations)

Most-cited authors (with at least 50 citations)	N. contributions	N. citations	%
Pine II B.J. and Gilmore J.H. (1998; 1999; 2000; 2000b; 2011) - Gilmore J.H. and Pine B.J. (2002; 2002b; 2002c)	8	10873	73.40%
Oh H., Fiore A M. and Jeoung M. (2007)	1	548	3.70%
Hosany S. and Witham M. (2009)	1	259	1.75%
Poulsson S.H. and Kale S.H. (2004)	1	229	1.55%
Morgan M. (2004 2006)	2	215	1.45%
Boswijk A., Thijssen T. and Peelen E. (2007)	1	203	1.37%
Andersson T.D. (2007)	1	201	1.36%
Binkhorst E. and Den Dekker T. (2009)	1	197	1.33%
Richards G. (2001 2001)	2	186	1.26%
Petkus E. (2004)	1	151	1.02%
Pencarelli T. and Forlani F. (2002; 2006)	2	134	0.90%
Sundbo J. and Darmer P. (2008)	1	131	0.88%
Morgan M., Elbe J. and de Esteban Curiel J. (2009)	1	119	0.80%
Lorentzen A (2009)	1	117	0.79%
Mclellan H. (2000)	1	101	0.68%
Ek R., Larsen J., Hornskov S.B., and Mansfeldt O.K. (2008)	1	101	0.68%
Hayes D. and Macleod N. (2007)	1	100	0.68%
Sundbo J. (2009)	1	91	0.61%
Kao Y., F. Huang L.S., and Wu C.H. (2008)	1	85	0.57%
Quadri-Felitti D. and Fiore A.M. (2012)	1	77	0.52%
Chang T.Y. and Horng S.C. (2010)	1	74	0.50%
Mehmetoglu M. and Engen M. (2011)	1	72	0.49%
Baum T. (2006)	1	71	0.48%
Wu W.Z. and Zhuang Z.M. (2003)	1	70	0.47%
Scott N., Laws E. and Boksberger P. (2009)	1	67	0.45%
Knutson B.J., Beck J.A., Kim S.H. and Cha J. (2007)	1	62	0.42%
Ellis G.D. and Rossman J.R. (2008)	1	62	0.42%
Moscardo G. (2009)	1	57	0.38%
Johansson M. and Kociatkiewicz J. (2011)	1	56	0.38%
Smith W.L. (2005)	1	53	0.36%
Yu H. and Fang W. (2009)	1	52	0.35%

Source: Our data processing

A subgroup was created for the Top 41 contributions having at least 50 citations, shown in 3 tables:

Tab. 7.1: Works with more than 50 citations, grouped by language

Language	En	It	Fr	Spa	Tot
N. contributions	37	3	0	1	41

Source: Our data processing

Tab. 7.2: Impact of the main contributions on the whole

Most-cited authors (Top 41)	N. citations
% Top 41 on total of whole contributions	22.78%
% citations Top 41 on total of whole citations	90.45%

Source: Our data processing

Tab. 7.3: Top 41 works related to tourism

Most-cited authors (Top 41)	N.	%
Tourism	22	53.66%
Other fields	19	46.34%
Total	41	100.00%

Source: Our data processing

Data synthesis

The analysis revealed, first of all, that since 2000 the experience economy concept has become a significant facet of the managerial debate, as pointed out by Ferreira and Teixeira (2013). If we observe the number of works submitted per year (Table 4), it is plain to see that scholars' interest in the topic exploded between 2007 and 2009, and then leveled off in the years that followed. This data is in line with the findings of the Ferreira and Teixeira (2013, p. 15) study. These authors undertook an analysis of the "evolution of the number of citations of Pine and Gilmore's article (1999-2011)", and they pointed out how, in 2009, the number of yearly citations doubled and later, was consolidated. The years 2007 and 2009 are also those in which works were published by scholars other than Pine and Gilmore, and which brought the most citations (Oh *et al.*, (2007), in Journal of Travel Research; Andersson (2007), in Scandinavian Journal of Hospitality and Tourism; Hayes and MacLeod (2007), in Journal of Vacation Marketing; Ek *et al.* (2008), in Scandinavian Journal of Hospitality and Tourism; Binkhorst *et al.* (2009), in Journal of Hospitality Marketing & Management; Hosany and Witham (2009), in Journal of Travel Research; Morgan *et al.* (2009), in International Journal of Tourism Research). This data highlights how 2007 was the year in which the "experience economy" concept was the object of numerous and qualified academic papers, thus laying the foundation for a new stream of managerial research in the field of tourism.

From the analysis of the three language areas, there emerged that among the various translations of Pine and Gilmore's 1999 book, "The experience economy: work is theatre & every business a stage", the only one to have a significant number of citations (among the Top 41) is the Italian version (285). Again, from a linguistic analysis perspective, it is interesting to note that the "experience economy" did not play any relevant role in France or in francophone countries (Pine and Gilmore's work was not even translated into French) whereas it was immediately used in both Italian (Pencarelli and Forlani, 2002; 2006) and Spanish (Richards, 2001). These contributions, albeit having won a fair amount of success in terms of attention and citations, essentially remained isolated cases that did not foster deeper studies or related research streams. As is apparent from the growth in the number of works written in different languages that the topic is currently most often published in English and Spanish language journals (although the latter do not generate a significant number of citations). This situation is probably due not only to the low significance of the topic in the area where other languages are used, but also to the tendency, in recent years, of Mediterranean countries to use English more and more in scientific debates.

Using the criterion of works classified by number of citations received, we highlight the following: 23% of the studies (which we call the Top 41) receive 90.5% of the citations (Table 7.2). When we look at the 41 articles that received at least 50 citations, we can see that 73.4% of these citations were received by the eight works written by Pine and Gilmore, of which 27% by the 1998 article published in the Harvard Business Review and 39% by the 1999 book published by Harvard Business Press.

Finally, while our analysis shows the multidisciplinary nature of the studies that utilize the "experience economy" concept - and this is in line with Ferreira and Teixeira (2013, p. 17) - it brings to light the fact that 37% of published works make explicit reference to tourism, which appears in the review or in the title of the article, the keywords, the abstract, or the title of the journal. For the purposes of our study however, there remains the significant fact that the topic of tourism accounts for 54% if we look exclusively at the 41 most cited works (Top 41). In confirmation of this tendency, it is worthy of note that if one excludes the works by Pine and Gilmore, then it is extremely clear to see how the works that have most heavily impacted the scientific community are those that focus on tourism-managerial studies.

To conclude, as of 2002 the model of the "experience economy" has become more and more consolidated, especially in the field of management and tourism marketing. In fact, the literature analysis shows how the concepts and the tools that have been developed within the framework of the experience economy find their highest recognition and realm of application in tourism and related fields such as entertainment, sports, and event planning (Ferreira and Teixeira, 2013).

The present work fits into this stream of research. The authors hope that this version, in English, may represent a valid theoretical contribution for the study of marketing and management of fragmented touristic destination.

References

ALBERONI F. (1964), *Consumi e società*, Il Mulino, Bologna.

ANDERSSON T.D. (2007), "The tourist in the experience economy", *Scandinavian Journal of Hospitality and Tourism*, vol. 7, n. 1, pp. 46-58.

BAKKALBASI N., BAUER K., GLOVER J., WANG L. (2006), "Three options for citation tracking: Google Scholar, Scopus and Web of Science", *Biomedical Digital Libraries*, vol. 3 n. 1, pp. 7-14.

BAUM T. (2006), "Reflections on the nature of skills in the experience economy: Challenging traditional skills models in hospitalit", *Journal of Hospitality and Tourism Management*, vol. 13, n. 02, pp. 124-135.

BECHERI E., MANENTE M. (2001), *L'Italia fra Unione Europea e mediterraneo,* X Rapporto sul Turismo italiano, Mercury, Firenze.

BINKHORST E., DEN DEKKER T. (2009), "Agenda for co-creation tourism experience research", *Journal of Hospitality Marketing and Management*, vol. 18, n. 2-3, pp. 311-327.

BORGHESI A. (1994), *Il marketing delle località turistiche. Aspetti metodologici e ricerche empiriche,* Giappichelli, Torino.

BOSWIJK A., THIJSSEN T., PEELEN E. (2007), *The experience economy: A new perspective,* Pearson Education, Amsterdam.

BRUNETTI F. (1999), *Il turismo sulla via della qualità*, Cedam, Padova.

CAFFERATA R. (1995), *Sistemi, ambiente e innovazione. Come s'integrano la continuità e il mutamento nell'impresa*, Giappichelli, Torino.

CAROLI M. (1999), *Il marketing territoriale,* Franco Angeli, Milano.

CASARIN F. (1996), *Il marketing dei prodotti turistici*, Giappichelli, Torino.

CHANG T.Y., HORNG S.C. (2010), "Conceptualizing and measuring experience quality: the customer's perspective", *The Service Industries Journal*, vol. 30, n. 14, pp. 2401-2419.

COHEN E. (1979), "A phenomenology of tourist experience", *Sociology*, vol. 13, n. 2, pp. 180-201.

CORRIGAN P. (1999), *La sociologia dei consumi*, F. Angeli, Milano.

COSTA N. (2002), postfazione a Sangalli F. (ed.) *Le organizzazioni del turismo,* Apogeo, Milano.

COZZI G., FERRERO G. (2000), *Marketing - Principi, metodi, tendenze evolutive*, Giappichelli, Torino.

CROSSAN M.M., APAYDIN M. (2010), "A multidimensional framework of organizational innovation: A systematic review of the literature", *Journal of Management Studies*, vol. 47, n. 6, pp. 1154-1191.

DELLA CORTE V. (2000), *La gestione dei sistemi locali di offerta turistica*, Cedam, Padova.

DIXON-WOODS M., BONAS S., BOOTH A., JONES D.R., MILLER T., SUTTON A.J., YOUNG B. (2006). "How can systematic reviews incorporate qualitative research? A critical perspective", *Qualitative Research,* vol. 6, n. 1, pp. 27-44.

EK R., LARSEN J., HORNSKOV S.B., MANSFELDT O.K. (2008), "A dynamic framework of tourist experiences: Space time and performances in the experience econom", *Scandinavian Journal of Hospitality and Tourism*, vol. 8, n. 2, pp. 122-140.

ELLIS G.D., ROSSMAN J.R. (2008), "Creating Value for Participants through Experience Staging: Parks, Recreation, and Tourism in the Experience Industry", *Journal of Park and Recreation Administration*, vol. 26, n. 4, pp. 1-20.

FERREIRA H., TEIXEIRA A.A. (2013), "'Welcome to the experience economy': assessing the influence of customer experience literature through bibliometric analysis (No. 481)", Universidade do Porto, Faculdade de Economia do Porto.

GILMORE J.H., PINE B.J. (2002b), "Customer experience places: the new offering frontier", *Strategy and Leadership*, vol. 30, n. 4, pp. 4-11.

GILMORE J.H., PINE B.J. (2002c), *The experience is the marketing,* Brown Herron Publishing.

GILMORE J.H., PINE II B.J. (2002), "Differentiating hospitality operations via experiences: Why sellign services is not enough", *Cornell Hospitality Quarterly*, vol. 43, n. 3 pp. 87-96.

GINSBERG A., VENKATRAMAN N. (1985), "Contingency perspectives of organizational strategy: A critical review of the empirical research", *Academy of Management Review,* vol. 10, n. 3, pp. 421-434.

GOLINELLI G.M. (2000), *L'approccio sistemico al governo dell'impresa*, Cedam, Padova.

GOLINELLI G.M. (2002), *L'approccio sistemico al governo dell'impresa III*, Cedam, Padova.

GOLINELLI G.M., GATTI M., SIANO A. (2002), "Approccio sistemico e teoria delle risorse: verso un momento di sintesi per l'interpretazione della dinamica dell'impresa", in Golinelli G.M., *L'approccio sistemico al governo dell'impresa III,* Cedam, Padova.

GOLINELLI G.M., GATTI M., VAGNANI G. (2002), "Dalla struttura al sistema: elementi per una riflessione sui confini, i rapporti con la proprietà, la flessibilità e l'elasticità dell'impresa", in Golinelli G.M., *L'approccio sistemico al governo dell'impresa III,* Cedam, Padova.

GRÖNROOS C. (1994), *Management e marketing dei servizi,* Isedi - Utet, Torino.

GROVE S.J., FISK R.P. , BITNER M.J. (1997), "Dramatizing the service experience: a managerial approach", in Gabbott M., Hogg G., *Services Marketing Management. A Reader*, Dryden Press, London.

GUMMESSON E. (1999), *Total Relationship Marketing. Rethinking management: From 4Ps to 30 Rs*, Butterwort-Heinemann, Oxford.

HAYES D., MACLEOD N. (2007), "Packaging places: Designing heritage trails using an experience economy perspective to maximize visitor engagement", *Journal of Vacation Marketing*, vol. 13, n. 1, pp. 45-58.

HEATH E., WALL G. (1992), *Marketing Tourism Destination. A Strategic Planning Approach*, John Wiley & Sons, New York.

HOSANY S., WITHAM M. (2009), "Dimensions of cruisers' experiences, satisfaction, and intention to recommend", *Journal of Travel Research*, vol. 49, n. 3, pp. 351-364 .

JOHANSSON M., KOCIATKIEWICZ J. (2011), "City festivals: creativity and control in staged urban experiences", *European Urban and Regional Studies*, vol. 18, n. 4, pp. 392-405.

KAO Y.F., HUANG L.S., WU C.H. (2008), "Effects of theatrical elements on experiential quality and loyalty intentions for theme parks", *Asia Pacific Journal of Tourism Research,* vol. 13, n. 2, pp. 163-174.

KNUTSON B.J., BECK J.A., KIM S.H., CHA J. (2007), "Identifying the dimensions of the experience construct", *Journal of Hospitality and Leisure Marketing*, vol. 15, n. 3, pp. 31-47.

LORENTZEN A. (2009), "Cities in the experience economy", *European Planning Studies*, vol. 17, n. 6, pp. 829-845.

MARTINENGO M.C., SAVOJA L. (1998), *Sociologia dei fenomeni turistici,* Guerini, Milano.

MARTINI U. (1996), "L'offerta dei prodotti turistici di fronte alla complessità dei mercati: qualità, marketing, tecnologie per l'informazione e risorse umane", *Sinergie*, n. 41 pp. 205-223.

MCLELLAN H. (2000), "Experience design", *Cyberpsychology and Behavior,* vol. 3, n. 1, pp. 59-69.

MEHMETOGLU M., ENGEN M. (2011), "Pine and Gilmore's concept of experience economy and its dimensions: An empirical examination in tourism", J*ournal of Quality Assurance in Hospitality and Tourism*, vol. 12, n. 4, pp. 237-255.

METALLO G. (1984), *La produzione di servizi alberghieri. Aspetti della gestione finanziar*ia, Cooperativa Universitaria Editrice Salernitana, Salerno, 1984.

MIDDLETON V.T.C. (2001), *Marketing in Travel and Tourism,* Butterworth, Heinemann, London.

MOLTENI M., SAINAGHI R. (1997), "Il metamanagement di un distretto turistico", *Economia e management,* vol. 6, pp. 93-104.

MORGAN M. (2004), "From production line to drama school: higher education for the future of tourism", *International Journal of Contemporary Hospitality Management*, vol. 16, n. 2, pp. 91-99.

MORGAN M. (2006), "Making space for experiences", *Journal of Retail and Leisure Property*, vol. 5, n. 4, pp. 305-313.

MORGAN M., ELBE J., DE ESTEBAN CURIEL J. (2009), "Has the experience economy arrived? The views of destination managers in three visitor dependent areas", *International Journal of Tourism Research*, vol. 11, n. 2, pp. 201-216.

MOSCARDO G. (2009), "Understanding tourist experience through mindfulness theory", in Kozak M., Decrop A., *Handbook of tourist behavior: Theory and Practice*, Routledge, pp. 99-115.

NORMANN R. (2002), *Ridisegnare l'impresa. Quando la mappa cambia il paesaggio*, Etas, Milano.

NORMANN R., RAMIREZ R. (1995), *Le strategie interattive d'impresa. Dalla catena alla costellazione del valore*, Etas Libri, Milano.

OH H., FIORE A.M., JEOUNG M. (2007), "Measuring experience economy concepts: Tourism applications", *Journal of travel research,* vol. 46, n. 2, pp. 119-132.

PECK H., PAYNE A., CHRISTOPHER M., CLARK M. (1999), *Relationship Marketing. Strategy and Implementation*, Butterworth-Heinemann, Oxford.

PENCARELLI T. (1995), *Piccola impresa, alleanze strategiche ed integrazione europea*, ASPI UNS-Edit.

PENCARELLI T. (2001), *Marketing e performance nell'industria turistica*, Quattroventi, Urbino.

PENCARELLI T., CIVITARESE C. (2000), "Appunti per un nuovo modello di governo dei distretti turistici", *Prisma*, vol. 14, n. 15, pp. 1-20.

PENCARELLI T., FORLANI F. (2002), "Il marketing dei distretti turistici-sistemi vitali nell'economia delle esperienze", *Sinergie*, n. 58, pp. 231-277.

PENCARELLI T., FORLANI F. (2006), "Il marketing dei prodotti tipici nella prospettiva dell'economia delle esperienze", in *Congresso Internazionale Le tendenze del Marketing*, Paris-Venice.

PERONI G. (1998), *Marketing turistico*, Franco Angeli, Milano.

PETKUS E. (2004), "Enhancing the application of experiential marketing in the arts", *International Journal of Nonprofit and Voluntary Sector Marketing*, vol. 9, n. 1, pp. 49-56.

PINE II B.J., GILMORE J.H. (2000), *L'economia delle esperienze*, Etas, Milano.

PINE B.J., GILMORE J.H. (2011), *The experience economy* (Updated edition). Harvard Business Press.

PINE B.J., GILMORE J.H. (1998), "Welcome to the experience economy", *Harvard Business Review,* vol. 76, pp. 97-105.

PINE B.J., GILMORE J.H. (1999), *The experience economy: work is theatre & every business a stage,* Harvard Business Press.

PINE B.J., GILMORE J.H. (2000b), "Satisfaction, sacrifice, surprise: three small steps create one giant leap into the experience economy", *Strategy and Leadership*, vol. 28, n. 1, pp. 18-23.

PITTAWAY L., ROBERTSON M., MUNIR K., DENYER D., NEELY A. (2004), "Networking and innovation: a systematic review of the evidence", *International Journal of Management Reviews*, vol. 5, n. 3-4, pp. 137-168.

POULSSON S.H., KALE S.H. (2004), "The experience economy and commercial experiences", *The Marketing Review,* vol. 4, n. 3, pp. 267-277.

PRATESI C.A. (2002), "Tendenze in atto nel business del tempo libero", in Resciniti R. (a cura di), *Economia e marketing del tempo libero. Profili e prospettive di un'industria emergente,* F. Angeli, Milano.

QUADRI-FELITTI D., FIORE A.M. (2012), "Experience economy constructs as a framework for understanding wine tourism", *Journal of Vacation Marketing*, vol. 18, n. 1, pp. 3-15.

RESCINITI R. (2002), (ed.), *Economia e marketing del tempo libero. Profili e prospettive di un'industria emergente*, F. Angeli, Milano.

RICHARDS G. (2001), "The experience industry and the creation of attractions" in Richards G., *Cultural attractions and European tourism,* CAB International, Wallingford, UK, pp. 55-69.

RICHARDS G. (2001b), "El desarrollo del turismo cultural en Europa", *Estudios Turísticos*, (150), pp. 3-13.

RIFKIN J. (2000), *L'era dell'accesso. La rivoluzione della new economy*, Oscar Mondatori, Milano.

RISPOLI M. (2002), "Economia e marketing del turismo: lo scenario di riferimento", in Resciniti R. (a cura di), *Economia e marketing del tempo libero. Profili e prospettive di un'industria emergente*, F. Angeli, Milano.

RISPOLI M., TAMMA M. (1996), *Le imprese alberghiere nell'industria dei viaggi e del turismo,* Cedam, Padova.

RITZER G. (2000), *La religione dei consumi. Cattedrali, pellegrinaggi e riti dell'iperconsumismo*, Il Mulino, Bologna.

SANCETTA G. (1995), *Aspetti del comportamento competitivo delle imprese alberghiere,* Cedam, Padova.

SCOT N., LAW E., BOKSBERGE P. (2009), "The marketing of hospitality and leisure experiences", *Journal of Hospitality Marketing and Management*, vol. 18, n. 2-3, pp. 99-110.

SERTORIO G. (1998), "Introduzione", in Martinengo M.C., Savoja L., *Sociologia dei fenomeni turistici,* Guerini, Milano.

SMITH W.L. (2005), "Experiential tourism around the world and at home: definitions and standards", *International Journal of Services and Standards,* vol. 2, n. 1, pp. 1-14.

SUNDBO J. (2009), "Innovation in the experience economy: a taxonomy of innovation organisations", *The Service Industries Journal*, vol. 29, n. 4, pp. 431-455.

SUNDBO J., DARMER P. (ed.), (2008), *Creating experiences in the experience economy*, Edward Elgar, Cheltenham , Edward Elgar, p. 1-12.

TAMMA M. (1999), "Aspetti strategici del management delle destinazioni", in *Pechlaner, H/Weiermair, Destinations - Management. Fuhrung und Vermarktung von touristischen Zielgebieten,* Verlang Linde, Wien.

TOFFLER A. (1988), *Lo chock del futuro*, Sperling & Kupfer, Milano.

TRANFIELD D., DENYER D., SMART P. (2003), "Towards a methodology for developing evidence informed management knowledge by means of systematic review", *British Journal of Management*, vol. 14, n. 3, pp. 207-222.

VALDANI E., GUENZI P. (1998), *Il marketing nei parchi tematici. Un modello di gestione per le imprese dell'entertainment*, Egea, Milano.

VICARI S. (1983), "Sviluppo dell'impresa alberghiera e politiche di marketing", in Ruozi (a cura di), *L'impresa alberghiera*, Giuffrè, Milano.

WU W.Z., ZHUANG Z.M. (2003), "The Layout and Innovation of Tourism Products in Experience Economy Era. A Case Study on Experience-Exploitation of Ancient Village Tourism Product", *Tourism Tribune*, vol.18, n. 6, pp. 66-70.

YU H., FANG W. (2009), "Relative impacts from product quality, service quality, and experience quality on customer perceived value and intention to shop for the coffee shop market", *Total Quality Management,* vol. 20, n. 11, pp. 1273-1285.

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Book reviews

Guido Baglioni, **Un racconto del lavoro salariato,** Il Mulino, Bologna, 2014, pp. 252.

L'autore del libro è uno dei maggiori studiosi del lavoro e delle relazioni industriali in Italia, che ha speso la vita e la carriera accademica per occuparsi di questi importanti temi ora intrecciati con la trama di un racconto legata alla biografia e alla operatività professionale dell'autore. Il racconto di Baglioni infatti parte dagli anni Cinquanta quando, giovane studioso, impegnato nella esperienza sindacale, cominciò ad occuparsi del tema lavoro. Il racconto prosegue giungendo fino al tempo attuale e mette in evidenza "le fila di un periodo eccezionale della nostra storia, che segna un netto miglioramento delle condizioni di gran parte del mondo del lavoro, e arriva alla "sorpresa" della crisi, con il blocco della crescita economica e l'aumento drammatico della disoccupazione e della povertà" (T. Treu).

Per rendere maggiormente scorrevole un testo che analizza temi complessi ma che vuole presentarsi ben comprensibile, sia agli addetti ai lavori sia ai lettori interessati e culturalmente preparati, l'autore ha ritenuto indispensabile utilizzare fonti bibliografiche combinate di letteratura specialistica, di giornali di larga diffusione e di narrativa. Resta comunque evidente lo sforzo di Baglioni di analizzare il ruolo che il lavoro salariato ha ricoperto nella nostra società dal secondo dopoguerra ad oggi, perché nel libro, in ordine alla tutela del lavoro salariato e alla sua promozione, egli ha focalizzato la matrice ideologica marxista e quella cattolica.

Infatti egli così scrive: "Se vogliamo esprimere questo dualismo in modo molto semplice, possiamo sostenere che la prima concezione si propone di modificare il rapporto di lavoro dipendente e l'assetto dell'impresa privata, nonché i tratti istituzionali della società. Mentre la seconda concezione tende a migliorare le condizioni di lavoro, economiche e normative, con strumenti e pratiche negoziali e legislative, che riconoscono il valore e la funzione sociale delle diverse categorie di occupati" (p. 15).

Pur avendo fatto una scelta di campo secondo la prospettiva cattolica, Baglioni riconosce nel campo del lavoro aspetti positivi negli sviluppi riformatori delle social-democrazie europee e del laburismo e, per quanto riguarda l'Italia, egli ritiene che la diversità fra le culture del lavoro nel nostro Paese si attenua decisamente «sui temi concreti della azione politica e sindacale, come quello della occupazione nella forma ottimale di un posto stabile» (p. 130).

Sempre rimanendo fedele ai principii delle proprie scelte ideologiche fondamentali, l'autore, nel corso degli anni, non ha mai smesso di arricchirle con ulteriori enunciazioni propositive, auspicando che il salario dei lavoratori della industria potesse garantire stabilmente un tenore di vita appropriato al grado di sviluppo economico-sociale del nostro Paese, perché l'idea primaria del lavoro per Baglioni, per quanto riguarda soprattutto il periodo storico dal 1945 ad oggi, resta pur sempre una forma di promozione umana, un mezzo di libertà e di riscatto, senza dubbio il veicolo privilegiato ed insostituibile per una crescita, non soltanto materiale, dell'uomo.

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Il libro racconta con numerosi dettagli e copiosi riferimenti le trasformazioni del lavoro attraverso due fasi distinte e concluse, la prima delle quali va dal dopoguerra agli anni Ottanta e la seconda dagli anni Novanta al biennio 2007-08. A queste due fasi si aggiunge una fase, ancora in corso, senza dubbio concomitante con la diffusa crisi che stiamo attraversando.

L'autore, a proposito della prima fase, si sofferma ad analizzare i profondi mutamenti nelle strutture produttive ed occupazionali del nostro paese con un conseguente cambiamento nell'ambito della generale situazione economica e sociale, nella quale si affermano conquiste sindacali davvero importanti. Per merito di queste ultime si è arrivati infatti a conseguire diritti fondamentali in campo lavorativo grazie a costanti azioni rivendicative dei lavoratori soprattutto di quelli della industria più sviluppata e moderna del nostro paese.

Per quanto riguarda la seconda fase, l'autore sostiene che essa è stata caratterizzata da un diffuso benessere che tuttavia non nasconde le prime manifestazioni di una incipiente fragilità nel settore sia della politica sia della economia che ha portato ad indebolire a tal punto il Sindacato nelle sue diverse articolazioni da costringerlo a promuovere iniziative immediate e difensive per tutelare le centralità delle questioni occupazionali.

Con il biennio 2007-08 gli economisti sono d'accordo che esso chiude la seconda fase, ma nel contempo si apre anche una fase ancora in corso, una fase di vera e propria crisi, perché diminuiscono i posti stabili, si diffondono occupazioni atipiche e precarie con una evidente erosione, sempre più accentuata, del benessere, dei diritti sociali e civili, conquiste fondamentali dei lavoratori attuate nei periodi storici precedenti.

Vogliamo concludere riportando quanto si legge nel risvolto di copertina del libro di Baglioni. "Con l'esplodere della crisi, il problema non è tanto il rapporto di lavoro quanto la mancanza di lavoro, che si gioca soprattutto sulla ripresa e sulla qualità della crescita economica. Le soluzioni possibili esistono, si dovrà puntare su efficienza, innovazione e serietà per poter ridurre disuguaglianza e povertà".

Umberto Casari

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GOLINELLI G.M., (2010), *Viable systems approach (VSA). Governing Business Dynamics*, Cedam, Wolters Kluwer, Padova.

Articles
BACCARANI C., GOLINELLI G.M., (2008), "The enterpreneur and the frontiers of complexity", *Sinergie*, n. 75, pp. V-X.

Book chapters
VARALDO R., (1987), "The internationalization of small and medium-sized italian manufacturing firms", in Rosson P., Reid S., (edited by), *Managing export entry and expansion: concepts and practice*, Praeger, New York.

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